Washington Metropolitan Area Transit Authority

Board Action/Information Summary

Action / Information	MEAD Number:	Resolution:
(●) Action ( ) Information	202211	(●) Yes ( ) No

TITLE:

Approval of 2020 Public Transp. Agency Safety Plan

PRESENTATION SUMMARY:

This resolution provides for the Board of Directors' approval of Metro's Agency Safety Plan (ASP).

PURPOSE:

Metro has developed its Public Transportation Agency Safety Plan to reflect the new Federal Transit Administration (FTA) requirements. The purpose of this action item is to obtain the Board of Directors' approval of Metro's Public Transportation Agency Safety Plan.

DESCRIPTION:

The Agency Safety Plan is comprised of the four main components of a safety management system: Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion. Each component has its own set of requirements, many of which are already in place. These requirements include:

- Safety Management Policy
  - Establish of safety objectives
  - Participate in employee safety reporting
  - Identify accountabilities and responsibilities

- Safety Risk Management
  - Identify safety hazards
  - Assess safety risks/hazards
  - Prioritize safety hazards based on the level of risk
  - Implement safety risk mitigations

- Safety Assurance
  - Conduct safety performance monitoring and measurement
  - Coordinate management of change assessments and activities
  - Provide for continuous improvement

- Safety Promotion

- Establish and maintain a comprehensive safety training program
- Communicate the Agency's safety performance throughout the organization.

There are no interested parties in this matter.

Key Highlights:

A Safety Management System (SMS) is a comprehensive, collaborative approach to risk management that brings management and labor together to build on the transit industry's existing safety foundation to control risk better, detect and correct safety problems earlier, share and analyze safety data more effectively, and measure safety performance more carefully.

SMS is about applying resources to risk and is based on ensuring that a transit agency has the organizational infrastructure to support decision-making at all levels regarding the assignment of resources.

Background and History:

On July 19, 2018, FTA published the Public Transportation Agency Safety Plan (PTASP) Final Rule, which requires certain operators of public transportation systems that receive federal funds under FTA's Urbanized Area Formula Grants to develop safety plans that include the processes and procedures to implement Safety Management Systems (SMS).

The PTASP rule became effective on July 19, 2019.

FTA published a Notice of Enforcement Discretion on April 22, 2020 effectively extending the PTASP compliance deadline from July 20, 2020 to December 31, 2020.

Metro must certify that it has a safety plan in place meeting the requirements of the PTASP rule by December 31, 2020. The safety plan must be updated and certified by the transit agency annually.

The ASP is similar to the existing System Safety Program Plan (SSPP) that Metro currently uses to manage safety, but information is re-ordered and streamlined to reflect a performance-based and continuous improvement methodology. Once fully implemented, the ASP will replace the SSPP.

Discussion:

Per 49 C.F.R. Part 673, the ASP, and subsequent updates, must be signed by the Accountable Executive and approved by the agency's Board of Directors. This resolution serves as the required approval.

FUNDING IMPACT:

Necessary funding is within approved annual budget.	
Project Manager:	Theresa Impastato
Project Department/Office:	Department of Safety and Environmental Management

TIMELINE:

Previous Actions	September 24, 2020 – Safety Management System / Agency Safety Plan Training
Anticipated actions after presentation	October 22, 2020 – Board approval of Metro's Agency Safety Plan

RECOMMENDATION:

Board approval of Metro's Public Transportation Agency Safety Plan.

SUBJECT: APPROVAL OF 2020 PUBLIC TRANSPORTATION AGENCY SAFETY PLAN

RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

WHEREAS, Federal Transit Administration (FTA) regulation 49 C.F.R. § 673.11(a)(1) requires the Board of Directors to approve WMATA's Public Transportation Agency Safety Plan (PTASP); and

WHEREAS, FTA requires grant recipients, such as WMATA, to submit a PTASP annually; and

WHEREAS, The General Manager and Chief Executive Officer has certified to the Board of Directors that the PTASP is satisfactory and complies with each of the requirements of the PTASP rule (49 C.F.R. Part 673), and that the PTASP effectively will guide WMATA with the management of safety risks of the rail and bus operations of the Authority (Attachment A to this Resolution); and

WHEREAS, The Board of Directors accepts the PTASP as satisfactory, that the PTASP complies with each of the requirements of the PTASP rule (49 C.F.R. Part 673), and that the PTASP effectively will guide WMATA with the management of safety risks of the rail and bus operations of the Authority;

NOW, THEREFORE, be it

RESOLVED, That the Board of Directors approves the 2020 Public Transportation Agency Safety Plan set forth in Attachment B to this Resolution; and be it finally

RESOLVED, That this Resolution shall be effective 30 days after adoption in accordance with Compact Section 8(b).

Reviewed as to form and legal sufficiency,

/s/ Patricia Y. Lee
Patricia Y. Lee
Executive Vice President and General Counsel

WMATA File Structure No.:
22.6.1 Federal Transit Administration (FTA) Safety Oversight

PROPOSED

Attachment A

PUBLIC TRANSPORTATION AGENCY SAFETY PLAN (PTASP) CERTIFICATION:

I, Paul J. Wiedefeld, General Manager and CEO, have reviewed the Public Transportation Agency Safety Plan (PTASP) and certify that the safety plan is satisfactory and complies with each of the requirements of the PTASP rule (49 C.F.R. Part 673), and that the safety plan effectively will guide the Washington Metropolitan Area Transit Authority with the management of safety risks of the rail and bus operations of the Authority.

Date: September 22, 2020

Paul J. Wiedefeld
General Manager and
Chief Executive Officer

Washington Metropolitan Area Transit Authority

600 Fifth Street, NW
Washington, DC 20001
202/962-1234

wmata.com

A District of Columbia, Maryland and Virginia Transit Partnership

Attachment B

WASHINGTON METROPOLITAN
AREA TRANSIT AUTHORITY
600 5th Street, NW Washington DC 20001

WMATA Transit Agency Safety Plan
2020

V1.0
October 8, 2020

Concurrences and Approvals

WMATA Agency Safety Plan

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Laura Mason
Executive Vice President
Capital Delivery

Provided in Appendix F
Paul J. Wiedefeld
General Manager and
Chief Executive Officer

Date: October 2, 2020

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Introduction

The Washington Metropolitan Area Transit Authority (WMATA) has developed this plan in conformance with its internal Safety Management System (SMS) requirements and the requirements of 49 CFR 673, as well as all other applicable requirements of FTA and Washington Metrorail Safety Commission (WMSC), WMATA's State Safety Oversight Agency (SSOA).

FTA's SMS program is described in the National Public Transportation Safety Plan (NSP), most recently published in January 2017 by FTA under the requirements of 49 CFR 670, and its companion document, the FTA's SMS Framework (August 2015). FTA's SMS requirements incorporate the previously required principles of system safety, described in the Military Standard 882, now in revision (e). SMS also provides an expansive approach to implementing the technical disciplines of system safety by managing safety as a component of the agency's core business functions.

Following the requirements of FTA's SMS, WMATA has formally adopted and is in the process of implementing a robust SMS; this Agency Safety Plan (ASP) documents the scale, approach and processes of WMATA's system-wide safety management system, scaled to its unique operating environment.

Our SMS is organized into four components aligned with FTA's SMS Framework:

Safety Management Systems Components

Safety Management Policy 1. Safety Management Policy Statement 2. Safety Accountabilities and Responsibilities 3. Integration with Public Safety and Emergency Management 4. SMS Documentation and Records	Safety Assurance 7. Safety Performance Monitoring and Measurement 8. Management of Change 9. Continuous Improvement
Safety Risk Management 5. Hazard Identification and Analysis 6. Safety Risk Evaluation	Safety Promotion 10. Safety Communication 11. Competencies and Training

WMATA acknowledges that the accountability for the contents and implementation of the Agency Safety Plan is now formally elevated to the Accountable Executive, the WMATA General Manager and Chief Executive Officer (GM/CEO), and to the WMATA Board of Directors in conformance with the requirements of 49 CFR 673.11(a)(1). The GM/CEO's SMS Policy Statement is found in Section 1.1 below.

Safety Management Policy

General Manager/Chief Executive Officer's Safety Management System Policy Statement

In accordance with the safety management philosophy and approach, one of the General Manager's main goals is to build and maintain a premier safety culture and safety management system in accordance with the Federal Transit Administration's adoption of a Safety Management System approach in its National Public Transportation Safety Program. The Agency Safety Plan establishes WMATA's FTA-compliant Safety Management System (SMS) as the primary strategy to achieve this goal. This Policy Statement also certifies that the Agency Safety Plan is compliant with the Washington Metrorail Safety Commission Program Standard and 49 CFR 673.

The management of safety is one of WMATA's core business functions. All levels of management and all employees are accountable for appropriately identifying and effectively managing risk in all activities and operations in order to deliver continuous safety improvement and reduce risk to the lowest practical level in service delivery, starting with the General Manager.

In conformance with FTA's National Public Transportation Safety Plan, and 49 CFR 673.23(a), WMATA's safety objectives are:

- Support the management of safety through the provision of appropriate and sufficient resources in order to reduce unacceptable and undesirable risk to appropriate levels; and to achieve an organizational culture that fosters safe practices, encourages effective employee safety reporting and communication, and actively manages risk with the same attention to results as the attention to the results of the other management systems of the organization;
- Integrate the management of safety among all responsibilities of all departments/offices and employees;
- Clearly define for all staff, executive management, technical management and front-line employees alike, their accountabilities and responsibilities for the delivery of the organization's safety performance and the performance of our safety management system;
- Establish and operate effective hazard identification, analysis and mitigation activities based in safety risk management activities, including an employee safety reporting program as a fundamental source for safety concerns and hazard identification, in order to eliminate or mitigate the safety risks of the consequences of hazards resulting from our operations or activities to a point which is consistent with our acceptable level of safety performance;
- Ensure that no action will be taken against any employee who discloses a safety concern through the employee safety reporting program, unless disclosure indicates an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures;
- Comply with, and wherever possible exceed, legislative and regulatory requirements and standards;
- Ensure that sufficient skilled and trained human resources are available to implement safety management processes;
- Ensure that all staff are provided with adequate and appropriate safety-related information and training, are competent in safety management matters, and are allocated only tasks commensurate with their skills;

- Establish and measure our safety performance against realistic and data-driven safety performance indicators and safety performance targets;
- Continually improve our safety performance through management processes that ensure that appropriate safety management action is taken and is effective; and
- Ensure externally supplied systems and services to support our operations are delivered meeting all requirements of this Agency Safety Plan.

This policy will be visibly communicated through my own direct efforts and that of my executive team, and also through all WMATA training, programs and procedures.

I affirm this commitment:

_____ _____

Paul Wiedefeld, Date
General Manager and Chief Executive Officer
Accountable Executive

1.1 Plan Development, Approval, and Updates

Name of Person Who Drafted This Plan	Theresa Impastato, Executive Vice President and Chief Safety Officer	
Signature by the Accountable Executive	**Signature of Accountable Executive**	**Date of Signature**
Approval by the Board of Directors or an Equivalent Authority	**WMATA Board of Directors Approval Resolution Identifier**	**Date of Approval**
	Relevant Documentation (title and location)	

Version Number and Updates			
Version Number	**Section/Pages Affected**	**Reason for Change**	**Date Issued**
1.		New Document	10/8/2020

1.2 Safety Performance Targets

Under the requirements of 49 CFR 673.11(a)(4), the WMATA ASP will address the applicable requirements set forth in the FTA's NSP demonstrating compliance with the minimum safety performance standards authorized under 49 U.S.C. 5329(b)(2)(C).

These standards, as set forth in the NSP, are associated with the National Transit Database reporting requirements:

- Fatalities - (total number of reportable fatalities and rate per total vehicle revenue miles by mode);
- Injuries - (total number of reportable injuries and rate per million unlinked trips or per 100 employees);
- Safety Events - (total number of reportable events and rate per total vehicle revenue miles by mode); and
- System Reliability - (mean distance between major mechanical failures by mode).

Each department/functional area has established internal safety performance targets for their safety-critical functions which feed into the overall targets. These individual targets are detailed as part of each department's business plan development. The Office of Performance (PERF) provides guidance on business plan development; templates and guidance are available on the

PERF website under Business Plans.

Safety performance targets are established and selected in coordination with the Washington Council of Governments (WCOG). WMATA's EVP/CSO shares the ASP, including safety performance targets, with the WCOG each year after its formal adoption by the WMATA Board of Directors. Prior to this submission, and at the direction of the EVP/CSO, WMATA personnel will submit draft targets to the WCOG for coordination at the same time the ASP is being circulated among internal departments for its annual review. This coordination will also include personnel from WMATA's Office of Performance (PERF) and Office of Government Relations (GOVR).

In addition to WCOG target coordination, internal safety performance targets that feed into the ASP-mandated are reported publicly through WMATA's Quarterly Performance Report.

FY2021 Safety Performance Targets are:

By Mode	Fatality Rate*	Fatality Count	Injury Rate*	Injury Count	Safety Event Rate*	Safety Event Count	Mean Distance Between Failure (VRM/Failure)
Rail	0	0	38.06	324	11.05	95	240,000 miles
Bus	0	0	95.73	359	69.32	260	7,000 miles
MetroAccess	0	0	24.22		7.78	18	N/A
*per 10 million Vehicle Revenue Miles (VRM)							

1.3 Annual Review and Update of the ASP

This Agency Safety Plan will be jointly reviewed and updated by the Chief Safety Officer by June 30th of each year. The Accountable Executive will review and approve any changes, signing the new ASP, forward to the WMATA Board for review and approval, followed by the WMCS submission.

This review will:

- Evaluate all safety tasks for appropriateness as Metrorail, Metrobus and MetroAccess improves and expands;
- Incorporate the current task descriptions, and activities;
- Refine and improve the current task descriptions and activities;
- Identify new tasks which may be required as WMATA expands;
- Incorporate target feedback from the WCOG; and
- Identify the organizations responsible for accomplishing newly added safety- related tasks.

The ASP review will take place during the second quarter of the fiscal year to allow for the maximum feedback from all departments on requested changes.

During the review period, a copy of the draft ASP will be supplied to all departments and personnel that have been assigned duties or responsibilities within the ASP for their review and comment.

Once all the comments have been reviewed and the ASP is internally approved but not signed, a

copy of the draft ASP will be presented to the WMSC for a conditional approval.

Once the conditional approval has been received back from the WMSC, all the signatories listed on page 3 of this document will sign and date the ASP thus approving it.

The signed ASP will then be resubmitted to the WMSC for their final approval and acceptance. Upon their approval and acceptance, the final ASP will be posted on SAFE's internal website and distributed to all safety committees for review.

1.4 Maintenance of the ASP

WMATA will maintain its ASP in conformance with 49 CFR 673.11(c), Subpart D and the WMSC Program Standard.

1.5 Safety Management Accountabilities and Responsibilities

In compliance with 49 CFR 673.23(d), WMATA has established its organizational accountabilities and responsibilities in this section.

1.6 Organizational SMS Accountabilities and Responsibilities

WMATA's General Manager and Chief Executive Officer (GM/CEO) is the Accountable Executive for the agency. Ultimate responsibility and accountability for the implementation and maintenance of the WMATA SMS belongs to the GM/CEO and may not be delegated to any other individual or position.

The GM/CEO has delegated the authority and responsibility for day-to-day implementation and operation of the SMS to the Chief Safety Officer (CSO), who functions as the WMATA SMS Executive. The CSO reports directly to the GM/CEO per the requirements of 49 CFR 673.23 (d)(2).

Under the authority of the Executive Vice Presidents described below, and with the guidance of the CSO/SMS Executive and the Department of Safety and Environmental Management (SAFE), key SMS personnel called Safety Risk Coordinators (49 CFR 673.23(d)(4) and 673.29) have the responsibility to ensure that each area has a fully implemented, ASP-compliant and robust safety management program. These key personnel are listed under each functional area by title.

All functional areas identified are safety-critical and support the service-delivery function of the agency, while ensuring that risk is maintained at an acceptable level. If hazards are not properly managed and mitigated, risk is created for the agency.

All areas (departments and offices) are responsible for the implementation SMS requirements, which include: the Safety Management Policy, Safety Risk Management, Safety Assurance and Safety Promotion, as they apply in the individual departments and areas.

The current organizational chart showing the organizational relationships described below is found in Appendix B.

1.7 Functional Area Common SMS Responsibilities

Each area is responsible for the SMS requirements listed below, as required by 49 CFR 673.23(d):

- SMS Goals and Objectives: Each area will establish goals with corresponding objectives associated with the following SMS requirements. Each activity is monitored internally to ensure goals are being met through the objectives established by each area through the SMS Internal Controls process (e.g., QICO Triennial audits and annual internal self-audits).

- SMS Training: See 4.1 – Competencies and Training

- Employee Reporting Program: all functional areas must ensure that employees know and understand how to report hazards and safety concerns, and encourages employees to report safety concerns. Safety concerns include, but are not limited to, non-compliance or violations of safety rules, hazardous conditions, environmental concerns, and incidents involving WMATA personnel, equipment, and property. Employee reporting concerns do not relieve personnel from taking reasonable actions to mitigate or eliminate an imminent safety hazard. Employees should report safety hazards through the Safety Hotline or Close Call Reporting if they are not comfortable with approaching their management.

- Hazard Identification, Analysis and Mitigation:

    - Each area is responsible to identify hazards in its daily activities and responsibilities and document these activities, including a baseline risk assessment, and the management of risk via departmental hazard logs or risk registers;

    - Outside of baseline risk, hazards are managed by exception; new or unusual hazards and risk appear on the hazard management database; and all hazards addressed in each department are shared and accessible to all other departments;

    - This includes the FTA requirements for appropriate and effective configuration management of all documentation, functions and activities; and effective management of change in each area under the requirements of Component 2, Safety Risk Management, and Component 3, Safety Assurance;

    - Corrective action is required to address any unacceptable or undesirable risks.

    - Identify risks through hazard identification, analysis and mitigation activities; or when risk can be lowered through additional mitigation per the requirements of Component 2, Safety Risk Management; and

    - Each area has its own standard operating procedures for this process, which must include the processes and responsibilities for development of corrective action plans when risk and hazards required mitigation.

- SMS Data and Reporting:

    - All functional areas must identify the safety management data associated with daily activities and responsibilities that carry risk as defined through the baseline risk

assessments;

- These data are analyzed to ensure that safety goals are being met and is shared with all departments. This includes conducting trending and analysis on hazard management activities.

- Corrective action is required to address any unacceptable or undesirable risk identified, or when risk can be lowered through additional mitigation per the requirements of Component 2, Safety Risk Management.

- Safety Assurance Activities:

  - Each department must lead investigations into adverse safety events occurring in its area and ensure that appropriate supervision and oversight of all safety-critical activities are documented and verified;

- Resources for SMS Implementation and Maintenance:

  - Each area has the responsibility, through hazard and data analysis, to identify when unacceptable or undesirable risk exists that cannot be mitigated with existing resources; and

  - These risks must be documented and addressed through the respective area's EVP Executive Safety Committee (ESC) participation or the hazard management process, noted in Section 2 – Safety Risk Management.

- Transit Asset Management Program:

  All appropriate areas must actively participate in the review process for the Transit Asset Management Plan (TAMP) to ensure appropriate configuration management of the TAMP and its conformance to the ASP, which is reviewed, and revised as appropriate, on an annual basis.

  This process is governed by documented procedures managed by the Transit Asset Management Office (TAMO).

- SMS Internal Controls Program:

  All functional areas must formally assess their own compliance with all WMATA internal requirements with the guidance of QICO and SAFE per the requirements of 49 CFR 673.27(d)(1).

- SMS Documentation:

  - Requirements of both 49 CFR 673 and 674 indicate that all areas must have formal documentation of all safety management activities;

  - Safety management activities are defined through the baseline risk assessment, departmental and area requirements (all required activities must be fully documented, verified and archived according to statute and MSC Program Standard requirements).

1.8 Functional Area Specific SMS Responsibilities

There are four levels of employee responsibility:

1. Executive Level Management (Executive Vice Presidents, Senior Vice Presidents, Vice Presidents)

2. Technical Management (Supervisors, Managers, Superintendents, Directors, Program Managers)

3. Front Line and Represented Employees

4. Safety Risk Coordinators

Each functional area will establish and document area- and department-specific SMS responsibilities for each of these levels.

Executive Level staff are also required to know and understand the ASP requirements, and to effectively communicate the SMS principles to all employees.

Each Executive Vice President is also responsible to ensure employees are trained in the specific SMS responsibilities as defined in this section.

The SMS responsibilities for each level are as follows:

Executive Level:

Executives are charged with ensuring that they lead from the front in safety management and will demonstrate their commitment to safety.

Specifically, Executives must personally ensure and be accountable that:

- Adequate resources are available to appropriately manage risk in their areas, and make cogent and accountable executive level decisions regarding safety risk tolerability;

- Effective mitigation and corrective actions are developed and implemented in a timely fashion, and monitored appropriately to assure safety is maintained in the mitigation and corrective action process;

- There are no barriers to employee reporting of safety hazards and issues, and reports are promptly addressed through the safety risk management process;

- The continuous improvement of safety is fully managed in their areas;

- Safety management is documented, managed and monitored at all times;

- Safety performance goals and objectives, both in their areas of control and agency-wide, are being met, and performance measures monitored for verification or needed corrective action;

- Full participation occurs in the Executive Safety Committee (ESC) and other safety committee processes, including:

    - Awareness and accountability of SMS compliance for employees in their area and system-wide;

    - Sharing SMS information with all other departments in a fully open and honest assessment of SMS compliance in their own areas, including hazard and risk management, data collection and analysis, safety trends, employee reporting, investigations and adverse events, internal controls, and asset and resource management;

    - Providing support and assistance to other areas and departments as needed for the success of SMS;

    - Ensuring the protection of employees in the reporting of hazards and risk, ensuring that their reports are afforded serious investigation and consideration, appropriately addressing reported hazards and risk, and ensuring there is a feedback loop to employees who report concerns; and

    - Providing strategic direction to technical management.

- Risk and corrective actions are managed using an organizational approach. Management must adequately address and correct organizational failures rather than blame employees;

- Adequate safety training, awareness and oversight is provided to employees in their areas of control;

- A positive safety culture is actively fostered in their area and system-wide; and

- Full and open cooperation is affected with State Safety Oversight activities, federal authorities and other external safety agencies as required.

Technical Management Level:

Technical Managers are charged with implementing directives from the Executive Level in safety management, and promptly reports safety lapses, failures, hazards and resource shortages.

They will ensure that they also visibly demonstrate their commitment to safety, provide the tools and resources at their disposal to employees needed to safely perform their job requirements, provide information pertinent to the management of safety to their employees, encourage the reporting of hazards and assure safety is incorporated in all task and activities on a daily basis.

Specifically, Technical Managers must personally ensure and be accountable for:

- Reporting and take strategic direction from the Executive Level in all aspects of safety management, including daily activities, hazard and risk management, safety data and trends, investigations and adverse events, employee reporting, and other safety management information particular to their areas of control;

- Fully integrate SMS principles into daily tasks and activities;

- Ensuring employees receive proper training to perform their jobs safely, and are properly supervised to ensure tasks and activities are safely managed and performed;

- Ensuring that employee reports of hazard and risk are properly investigated, mitigated as appropriate and reported to executive management; and employees are kept apprised of activities concerning their reports;

- Ensuring that contractors and vendors are informed of applicable SMS requirements; applicable Safety Assurance activities such as audits, assessments and inspections must be performed and documented;

- Coordinating implementation of safety mitigations in their areas, and ensure that safety assurance activities are robust for continuous improvement of safety and control of practical drift;

- Monitoring and promoting proper safety promotion and awareness activities;

- Monitoring change and change management activities appropriately;

- Identifying organizational failures with Executive Management, and cooperatively work to implement mitigations and corrective actions to address such failures;

- Ensuring all required activities are properly documented on a daily basis;

- Participating actively in the safety committee process as directed and assigned, including sharing of safety information within their areas and with other areas and departments;

- Fostering a positive safety culture in their areas and system-wide; and

- Cooperating fully and openly with State Safety Oversight activities, federal authorities and other external safety agencies as required.

Front Line Employees:

Front line and represented employees are critical to SMS success through their role in reporting safety hazards, which is where an effective SMS and a positive safety culture begin. They perform the daily tasks and activities where hazards can be readily identified so they can be addressed before they become adverse events.

Specifically, Front Line Employees must personally ensure and be accountable for:

- Recognizing and reporting all hazards and risk they encounter;

- Mitigating in the field, as appropriate, hazards in their area of concern;

- Fully participating in the safety committee process as appropriate;

- Ensuring they have the proper training to safely perform their job requirements, and request training when needed;

- Managing their work and tasks to reduce hazards and risks;

- Communicating effectively with other employees, supervision and management;

- Cooperating fully with supervision and management in addressing and mitigating hazards and risks; and

- Fostering a positive safety culture in their areas and system-wide.

Safety Risk Coordinators (Key Personnel)

Safety Risk Coordinators (SRCs) will be assigned for each EVP office at a minimum. The COO area will have several SRCs due to the complexity and risk associated with those operations. The SRCs will maintain this role as a collateral duty of their existing responsibilities and will be assigned the responsibilities by their respective EVP. The SRCs may delegate actions to subject matter experts when appropriate to support the ASP implementation. The SRCs also provide guidance and support to WMATA's Enterprise Risk Management program. The list of SRCs by job title may be found in Appendix C.

SRC training requirements include: One (1) hour course on SMS Awareness (FTA/TSI E Learning); Two (2) hour course on Safety Assurance (FTA/TSI E Learning) and a 20-hour course on SMS Principles for Transit (FTA/TSI, instruction-led). The virtual classes must be completed within 12 months of designation, and the instructor led course is contingent upon local class availability by the FTA.

The primary responsibilities of the SRCs include, but are not limited to:

- Coordinate the identification, documentation, and assessment of safety risks;

- Ensure that all safety-related corrective action plans are being managed and addressed in coordination with senior leadership;

- Ensure that local and departmental safety committees are held, and hazards brought forth are tracked and mitigated;

- Monitor and ensure safety incident investigations are thorough and completed per Policy/Instruction (P/I) No. 10.4 – Incident and Accident Investigations;

- Monitor the Safety Observation System, or other safety behavior monitoring systems, for leading indicators of potential hazards, if applicable;

- Providing subject matter expertise to support WMATA's SMS;

- Assist in maintaining documentation associated with the Agency's SMS;

- Attend and report on SMS-related activities at all departmental safety committees and respective STAT meetings (for COO offices); and

- Assist Accountable Executive or Chief Safety Officer (SMS Executive) in developing, implementing, and operating the agency's SMS as directed.

The following departments represent the Executive Management Team's functional area summaries. The authorities, accountabilities, and responsibilities listed above apply to all areas noted below.

1.9 The General Manager and Chief Executive Officer (GM/CEO)

WMATA's General Manager and Chief Executive Officer (GM/CEO), as the agency's Accountable Executive, meets the FTA criteria for the designation:

- Has the final authority over WMATA's Metrorail, Metrobus and MetroAccess operations and maintenance;

- Controls the financial resources required for the operations and maintenance of WMATA's public transportation system; and

- Controls the human resources required for the operations and maintenance of WMATA's public transportation systems.

As the Accountable Executive, the GM/CEO has the following responsibilities for ensuring the SMS:

- Is properly implemented and performed throughout the WMATA organization, including employee reporting programs;

- Is actively and continuously communicated throughout WMATA;

- Is implemented in a manner that ensures that all executive level personnel are held responsible for their spheres of control; and each actively and continuously communicates the WMATA SMS Policy and the area-specific SMS requirements to all employees in their areas;

- Is the signatory to this ASP and the TAMP, and is responsible to know and understand the contents of both documents;

- Is appropriately addressed system wide; and participates actively on the ESC to guide WMATA in safety and risk management, understand all risk at the agency, actively direct resource allocation activities and monitor safety performance of all areas; and

- Directs all required actions to mitigate SMS non-compliances, unacceptable and undesirable risks and implement continuous improvement activities

1.10 Safety and Environmental Management (SAFE)

The Executive Vice President & CSO (EVP/CSO) reports directly to the GM/CEO. The EVP/CSO functions as the SMS Executive.

SAFE provides support and guidance to the agency in service of the SMS. It is important to note that SAFE does not complete the tasks for the departments/offices or in lieu of the departments/offices, since safety management responsibility and accountability appropriately belong in the functional areas and departments performing the work. SAFE provides assurance to the areas and departments, to the WMSC and to the FTA that subject matter expertise is available to the entire agency to ensure a robust SMS and address concerns and questions regarding compliance, risk, corrective action and other safety management issues.

In the role of the SMS Executive, the CSO is responsible for the day-to-day implementation of SMS. Safety personnel may be deployed under the CSO's guidance and direction to assist and support in data collection and analysis, hazard identification and assessment, corrective action development and implementation, safety committee business, departmental and area safety assurance and promotion activities, and other safety management undertakings. At no time will SAFE primarily perform area-defined SMS tasks instead of the departments that own the safety management in the area of concern. The CSO actively participates in the ESC as the chairperson and as the Executive-level SME. The CSO is also adequately trained per 49 CFR 673.5 and 674.29(b), and does not serve in other operational or maintenance capacities.

The CSO will also directly interact with the key SMS personnel in each area to ensure they have the support they need to direct and verify completion of the required SMS tasks. The CSO is authorized to take action necessary to ensure key SMS personnel have the resources, training and guidance necessary to implement SMS in their areas.

SAFE is responsible for SMS activities in its area for its employees.

The EVP/CSO is responsible for the following safety-critical tasks and activities within SAFE:

- Safety-specific training requiring specific certification or expertise, including SMS training;
- Independent (but coordinated) safety assurance activities, such as inspections, audits, assessments and observations;
- Independent (but coordinated) safety promotion activities, such as surveys, stand downs and campaigns.

1.11 External Relations (EXRL)

The Executive Vice President and Chief External Affairs (EXRL), reports to the GM/CEO. The EVP/EXRL actively participates on the ESC and is fully responsible for SMS compliance in the Department of External Relations. EXRL is responsible for building and maintaining strong relationships with Metro's stakeholders, partners, and customers to include regional elected officials, business, community groups, and the Board of Directors.

Key priorities include:

- Work with jurisdictions and Congress to ensure needed operating and capital funding support
- Engage stakeholders in support of Metro's business goals and objectives, as well as coordinate with federal agencies and safety oversight organizations
- Improve customer experience and public confidence in Metro through in-system passenger information, media relations, and marketing channels

1.12 Strategy, Planning and Program Management (SPPM)

The Executive Vice President, Strategy Planning and Program Management reports to the GM/CEO. The EVP actively participates on the ESC and is fully responsible for SMS compliance in the Department of Strategy Planning and Program Management.

SPPM drives Metro's strategy and transforms how Metro does business and serves its customers. SPPM builds and oversees Metro's prioritized capital program and is the lead organization responsible for (1) business transformation, (2) planning, (3) sustainability, (4) capital programming and project development, evaluation and accountability, and (5) capital budgeting and funds management. SPPM also provides oversight and reporting, ensuring Metro's capital program advances safety, service reliability and financial stability, and invests federal, jurisdictional and dedicated funding wisely.

1.13 Chief Financial Officer (CFO)

The Executive Vice President and Chief Financial Officer reports to the GM/CEO. The EVP actively participates on the ESC and is fully responsible for SMS compliance in the Department of the Chief Financial Officer.

The Department of Financial Operations plans, allocates and manages the Authority's financial resources, policies and priorities to ensure fiscal integrity and alignment with Metro's overarching vision to move the region forward by connecting communities and improving mobility for our customers. Financial Operations facilitates fiscal responsibility and sound investment of funds through active management, rigorous monitoring and timely, transparent reporting. The Office of Management and Budget (OMB) is responsible for the development and formulation of the annual operating budget, long-range financial planning and revenue management. The Office of Accounting (ACCT) manages payroll operations, accounts payable, accounts receivable and financial reporting. The Office of the Treasurer (TRES) is responsible for risk management, revenue collection, liquidity management, corporate investments, and debt management as well as fare media sales and distribution. The Office of Real Estate and Parking (LAND) optimizes Metro's real estate and parking portfolios.

1.14 Internal Business Operations (IBOP)

The Executive Vice President and Chief Internal Business Operations reports directly to the GM/CEO. The EVP actively participates on the ESC and is fully responsible for SMS compliance in the Department of Internal Business Operations.

IBOP consists of six business functions that play integral roles in supporting all operating components of Metro: Human Resources, Information Technology, Labor Relations, Occupational Health and Wellness (OHAW), Procurement, and Fair Practices. IBOP provides administrative, technical and operational solutions to all Metro departments and offices. IBOP implements and supports information management solutions, provides acquisition services, manages unionized employment matters, provides clinical services (drug screening, sleep apnea, etc.) to employees and prospective employees, as well as health and wellness offerings to current employees and ensures compliance with Title I of the Americans with Disabilities Act (ADA). IBOP also sources and supports the selection of highly qualified talent, provides employee performance management programs, employee development and training opportunities, and promotes an engaged, diverse and inclusive organization free from discrimination. The department is focused

on business innovation through organizational transformation and integrating strategic priorities across functions with the goal of establishing a culture of high performance at all levels of the organization.

1.15 Chief Operating Officer (COO)

The Executive Vice President and Chief Operating Officer reports directly to the GM/CEO. The EVP actively participates on the ESC and is fully responsible for SMS compliance in the all COO functional areas noted below.

The Chief Operating Officer's (COO) mission is to move the region through safe, reliable, and cost effective public transportation. COO staff operate buses and trains; maintain Metro vehicle fleets, facilities, and rail infrastructure; execute certain capital programs; and ensure a safe and secure environment for passengers and employees. The department consists of Rail Services (RAIL), Bus Services (BUS), Access Services (ACCS), Metro Transit Police (MTPD), the Office of Budget, Planning, and Performance (OBPP), Reliability Engineering and Asset Management (REAM), Supply Chain Management (SCM), and Facilities, Systems and Vertical Transportation (FSVT).

As the COO's office has the largest exposure to safety risk, the departmental summaries are provided below.

The Rail Services (RAIL) department operates and maintains Metro's rail system in a safe, reliable and efficient manner 24-hours a day, 7 days a week, providing service across 118 miles of track and 91 stations, 40 of which are in Washington, D.C., 26 in Maryland and 25 in Virginia. RAIL is responsible for all facets of rail operations including station operations, train operations, the rail operations control center and the maintenance of all assets necessary to move customers through the system including railcars, track, traction power and the automatic train control system.

The Rail department is composed of the following groups:

- Rail Administration (RAIL ADM)
- Rail Transportation (RTRA)
- Chief Mechanical Officer (CMOR), which includes:
    - Car Maintenance (CMNT) and
    - Chief Engineer Vehicles (CENV)
- Silver Line Operations and Maintenance (SLOM)
- Rail Infrastructure Maintenance and Engineering (RIME), which includes:
    - Track and Structures (TRST)
    - Automatic Train Control Maintenance (ATCM)
    - Traction Power Maintenance (TRPM), and
    - Maintenance of Way Engineering (MOWE)

The Department of Bus Services (BUS) is committed to ensuring safe, clean, reliable, cost effective and responsive bus service to promote regional mobility and contribute to the social, economic and environmental well-being of the communities in the Washington region. Bus Services is the transportation provider for more than 120 million customer trips each year, and handles the operation, maintenance, and scheduling of Metrobus service in the District of Columbia, Maryland and Virginia. Metrobus is responsible for approximately 1,583 buses and 3,739 employees. Additionally, Bus Services handles the maintenance of Metro's service vehicles and equipment.

Metro Transit Police is responsible for the safety of Metro customers, personnel, and transit facilities over a 1,500 square mile transit zone, comprised of three jurisdictions. The Metro Transit Police Department (MTPD) is composed of both uniformed and plain clothes sworn police officers charged with the duty of enforcing the laws of the signatories; the laws, ordinances and regulations of the political subdivisions; and the rules and regulations of Metro. Additionally, Special Police Officers are responsible for the physical security at rail yards, bus divisions, and other Metro properties. MTPD is responsible for digital video management of cameras throughout the Metro system. Finally, MTPD is responsible for crime analysis and police records management, police radio communications and various administrative support functions. The Office of Emergency Management (OEM) consisting of civilian personnel, plans, trains, and provides on scene assistance for natural and man-made emergencies.

The mission of the Office of Facilities, Systems, and Vertical Transportation Maintenance (FSVT) is to support Metrobus and Metrorail operations and maintain infrastructure and equipment systems in a state of good repair by providing a coordinated approach to maintain elevators and escalators, electro-mechanical equipment systems, infrastructure, facilities, and grounds. FSVT offices include:

- Office of Elevators and Escalators (ELES) which manages and maintains all vertical transportation equipment within the auspices of the Authority;
- Office of Plant Maintenance (PLNT) that manages and maintains Metro's facilities, grounds, and mechanical equipment systems in support of Metrorail and Metrobus operations;
- Facilities Asset Management Office (FAMO);
- Office of Systems Maintenance (SMNT) which manages the electronic and electrical maintenance activities related to Metrorail wayside operations. SMNT is composed of the following:
    - Office of Automatic Fare Collection Section (AFCS) manages the installation, maintenance, and repairs of fare collection and parking lot equipment;
    - Office of Communications Sections (COMM) maintains Metro's communications systems in support of Metrobus, Metrorail and Metro Transit Police Department operations, as well as fire/life safety systems to help ensure public safety;
    - Office of Low Voltage Electrical Maintenance (LVEM) maintains and distributes all 480-volt electrical systems for Metro's facilities; and
    - Office of Shops and Material Support (SAMS) provides component-level repair and supports procurement actions for all SMNT.

The Office of Budget, Performance and Planning (OBPP) provides administrative and analytical support for the Chief Operating Officer and operating departments, using data effectively to facilitate decisions and improve operational performance. Operations Management Services (OPMS) ensures Metro's internal clients are well equipped to serve our customers, providing direct support to the COO organization in areas of budgetary development/ management, all inclusive training for technical skills and rail transportation, and consistent accountability to improve workforce availability.

Office of Performance (CPO) assists Metro in achieving its strategic goals by measuring and publicly reporting results via a set of Key Performance Indicators (KPIs), producing and presenting the quarterly Metro Performance Report to the Board of Directors, communicating why performance has changed and what actions will be taken to improve any deficiencies. CPO works collaboratively across the agency to turn data into performance information to help prioritize decision making on actions through performance reporting, target-setting, monthly performance

stat meetings, industry benchmarking and business plan development. Office of Intermodal Planning (IPLN) conducts operations planning for rail and bus operations, including headway and route definitions, manpower and vehicle requirements. In addition, IPLN coordinates the implementation of all changes for work assignments, signage changes, facility improvements and coordination efforts with other local carriers and jurisdictions.

The Department of Supply Chain Management (SCM) offices are designed to provide excellent supply chain solutions to their respective internal customers. The offices include:

- Office of Supply Chain Planning and Analytics: Develops and provides supply chain business intelligence and supply chain data governance to the Authority, enhancing asset availability and service delivery.
- Office of Supply Chain Contract Management: Provides advanced acquisition planning, contract management, and procurement compliance services for all inventory materials/supplies across the Authority, enhancing asset availability and service delivery.
- Office of Supply Chain Warehousing and Logistics: Provides timely and quality warehousing and logistical solutions for the Authority to ensure that the right parts are in the right place at the right time, enhancing asset availability and service delivery.

The Reliability Engineering and Asset Management (REAM) centralizes the Office of Reliability Centered Maintenance Planning (RCMP) and Transit Asset Management Office (TAMO) under a single functional group. The following offices to provide subject matter expertise:

- Reliability Engineering and Performance Analysis (REPA): Serves as the central office for reporting on reliability performance as well as facilitating Reliability Centered Maintenance analyses.
- Maintenance Planning and Scheduling (MPLN): Serves as the central office for providing maintenance planning and scheduling services.
- Transit Asset Management Office (TAMO): Serves as the central office for driving Asset Management initiatives and ensuring the Authority remains compliant with our Federally mandated obligations.

The Department of Access Services (ACCS) ensures the accessibility of public transportation including all Metro facilities and Metro-owned bus stops, vertical transportation, fixed-route transit, and equipment for people with disabilities. Access Services also administers Metro's Reduced Fare Program for people with disabilities, as well as the Free Ride Program for customers who are conditionally eligible for paratransit service. The department, through its three program offices, (ADA Policy & Planning, Eligibility Certification & Outreach, and MetroAccess Service), ensures the continuous improvement of all of Metro's accessible services and facilities. These improvements benefit the public and have important safety ramifications. Continually promoting and educating people with disabilities on the safe and independent use of Metro's accessible fixed-route services helps ensure that paratransit services are conserved for those individuals who truly need them.

1.16 Internal Compliance (INCP)

The Executive Vice President, Internal Compliance reports directly to the GM/CEO. The EVP actively participates on the ESC and is fully responsible for SMS compliance in the Department of Internal Compliance.

INCP is an internal management function. Committed to driving improvement Authority-wide, INCP ensures departments are fulfilling business objectives, addressing corrective actions and

complying with federal, state and local requirements and recommendations by deploying planned oversight and compliance activities.

Through its Offices of Quality Assurance, Internal Compliance and Oversight (QICO), Management Audits, Risk & Compliance (MARC), and Special Projects Office (SPEC), INCP performs internal reviews, audits and compliance assessments, and coordinates their related corrective action plans (CAPs). The department's activities comprise a key component of Metro's safety, risk and quality assurance frameworks, promoting improved safety, better business practices and greater service reliability across the organization.

QICO provides independent internal reviews and quality assurance assessments of service delivery, engineering and maintenance, capital program management and safety, and security functions. QICO coordinates and oversees the closure of corrective/preventive actions that address regulatory safety recommendations and required actions. QICO also manages Metro's Policy Instruction Manual leads the development and implementation of Metro's Quality Management System Plan (QMSP) and conducts the tri-annual Internal Safety Reviews.

MARC is Metro's Internal Audit function and provides objective internal auditing and advisory services to Metro management that add value and enable change for strong organizational governance, internal controls and effective risk management. MARC is also responsible for facilitating enterprise risk management (ERM) across the organization and facilitates organizational wide training on internal controls, risk management and compliance.

Special Projects Office (SPEC) leads and manages special and strategic projects at the direction of the General Manager/CEO and other senior management.

1.17 Office of General Counsel (COUN)

The Executive Vice President & General Counsel reports to the GM/CEO. The EVP actively participates on the ESC and is fully responsible for SMS compliance in the General Counsel Area.

The Office of General Counsel (COUN) handles all the legal affairs for the Authority. COUN provides legal advice and counsel to the Board of Directors, the General Manager and CEO, the executive team, and all Authority departments. COUN provides advice in many areas of the law including compliance with applicable laws and regulations, government contracts, labor and employment, marketing, real estate, ethics, and governance. COUN also handles all disputes and litigation for the Authority. The General Counsel works closely with each of the other executive team members, and their departments, to be cognizant of and advise on any legal issues.

1.18 Department of Capital Program Delivery (CAPD)

The Executive Vice President, Capital Program Delivery reports directly to the GM/CEO. The EVP actively participates on the ESC and is fully responsible for SMS compliance in the Department of Capital Program Delivery.

The Department of Capital Delivery (CAPD) provides leadership and expertise in management and delivery of capital projects in support of Metro's overall mission to deliver safe, reliable and affordable transportation options throughout the region. CAPD's organization structure consists of four main divisions: Office of Project Development and Implementation Planning (PDIP), Office

of Engineering and Architecture (ENGA), Office of Project Implementation and Construction (PICO) and Office of Technical Services and Portfolio Management (TSPM).

- PDIP's core function is to generate the solution set for major projects to enable informed decisions, maximize project outcomes, and develop the delivery strategy for each project to maximize value for the Authority, considering scope bundling, impact to operations and optimal contracting strategies for design, construction and owner's side responsibilities.

- ENGA is responsible for providing Authority-wide engineering and project management services, including the development of design criteria and standards. ENGA works closely with maintenance and operations departments to ensure that the transit system is maintained, and that any engineering issues on existing systems are properly evaluated and remediated.

- PICO's program delivery arm consists of Infrastructure Renewal Program (IRPG), Major Capital Projects (MCAP) and Silver Line Extension Program (DULS). These divisions assure projects comprising Metro's Capital Improvement Program are completed within scope, schedule and budget.

- TSPM provides a wide range of technical services and strategic portfolio management to the capital program through improvement and standardization of project management and business operations processes.

1.19 Office of the Inspector General (OIG)

The Office of Inspector General (OIG) performs special safety assurance activities at the agency. It operates independently, reporting to the Board of Directors and not to the GM/CEO. Under the WMATA Compact, OIG is an independent and objective unit of the Authority that conducts and supervises audits, program evaluations, and investigations relating to Authority activities; promotes economy, efficiency, and effectiveness in Authority activities; detects and prevents fraud and abuse in Authority activities; and keeps the Board fully and currently informed about deficiencies in Authority activities as well as the necessity for and progress of corrective action.

The OIG will coordinate with appropriate authoritative entities to effect reduction of risk and hazards where the OIG identifies them in the course of meeting their obligations to the Board and the agency.

1.20 Integration with Public Safety and Emergency Management

WMATA's Security and Emergency Management functions are led by MTPD.

The department develops, maintains, and takes the lead in implementing all security and emergency management documentation as required by 49 CFR 673.11(a)(6), hereby incorporated by reference as recommended by FTA.

Jurisdictional agreements, including Memoranda of Agreement/Understanding (MOA/MOU), are also maintained by MTPD.

Security and Emergency Management functions are subject to the requirements of Component 2 - Safety Risk Management, the same as all other safety-critical functions at the agency.

Documentation of hazard and risk assessment (threat and vulnerability assessment) is maintained by MTPD as required by the ASP.

Corrective action arising out of security and emergency management functions, including After Action Reports, is the responsibility of MTPD in coordination with the other areas and departments.

The documentation listed below specifies agency-wide plans, programs and processes to manage the public safety and emergency management functions:

- Emergency Operations Plan (EOP);
- Continuity of Operations Plan (COOP);
- Severe Weather Plan;
- Family Assistance Plan;
- Station Emergency Response and Evacuation Plan;
- MOAs/MOUs;
- Procedures governing Sensitive Security Information and Significant Security Concern Reporting per 49 CFR 1580; and
- General Orders, Standard Operating Procedures, Emergency Operating Procedures, Post Orders and other departmental safety-critical documentation of daily tasks and activities

The EOP identifies employee responsibilities during an emergency, and provide detail on the coordination with Federal, state, regional and local officials with roles and responsibilities for emergency preparedness and response in WMATA's service area.

These documents are available for review through MTPD's Office of Emergency Management.

1.21 SMS Documentation

WMATA will maintain documents that are included in whole, or by reference, that describe the programs, policies, and procedures that is used to carry out the ASP. These documents are available upon request by the Federal Transit Administration or other Federal entity, or the Washington Metrorail Safety Commission.

Per the requirements of 49 CFR 673.31, WMATA maintains all documentation incorporated here by reference for at least three years.

2 Safety Risk Management

Under the requirements of 49 CFR 673.25(a), transit agencies must develop and implement a Safety Risk Management (SRM) Process for all elements of the system.

As a component of Enterprise Risk Management, Safety Risk Management applies to all elements of the public transportation system, including employees and contractors, infrastructure, vehicles and equipment, revenue, and non-revenue service activities. It may also include others who interact with the system, such as first responders or other local agency employees. The Safety Risk Management process also feeds into the Safety Assurance process by evaluating changes that may impact safety performance. A periodic safety risk assessment can identify changes to operations and maintenance procedures, existing systems configuration or service, organization structure or resources, new capital projects, and other changes due to WMATA's internal and external environment. Safety Risk Management helps management evaluate the effectiveness of its safety risk mitigations over time.

2.1 Risk Assessment Process

The SRM process focuses on the systemic management of safety risk resulting from technical systems that change over time. The process enables a proactive approach in managing safety and helps allocate resources to areas of highest safety risk. The SRM process continuously monitors the effectiveness of mitigations and decision-making regarding priorities in allocating safety resources. SRM is the core process beneath the Safety Management System to determine and classify system-wide safety risks to develop appropriate risk mitigation strategies.

Hazards and other safety issues are identified and documented, and the associated safety risk is prioritized, mitigated, monitored, and controlled.

The safety risk is determined, assessed, and classified, and unacceptable safety risk mitigated. The effectiveness of risk mitigation strategies monitored and assessed, and the Accountable Executive ensures the overall performance of the Safety Management System and Safety Risk Management.

There is continuous progress toward improving safety.

2.2 Risk Assessment Methodology

The SRM methodology is designed for hazard identification and analysis to evaluate the components of each hazard and the potential consequences of each component. The evaluation occurs on management articulated safety risk inherent in each consequence in terms of impact (severity), and probability (likelihood) used to determine the effectiveness of current safety risk mitigation strategies reported at residual risk level. SRM analyzes hazards and evaluates safety risks managed through the Safety Management System and the Metro Enterprise Risk Management Policy and Framework, in which Safety Risk is a key component.

2.3 Hazard Identification

Hazard identification and analysis are a major sub-component of formal activities to identify hazards during operations related to provisions of services, and in conformance with the FTA National Public Transportation Safety Plan and 49 CRF 673.23 (a), considering the WMATA

safety objectives included in WMATA Transit Agency Safety Plan. Hazard identification includes any real or potential condition that can cause injury, illness, or death, damage to or loss of the facilities, equipment, rolling stock, or infrastructure of the WMATA transportation system; or damage to the environment.

Many sources within WMATA support hazard identification and the essential reporting of safety concerns by employees are encouraged and analyzed to support hazard identification. Another vital hazard risk identification source is the determination of known or potential hazards and factoring safety objectives by considering processes that support provisions of services to determine where hazards are most likely to exist. Consideration of each source and component is necessary to facilitate a comprehensive identification and subsequent assessment of hazard safety risks.

2.4 Hazard Identification Sources

The following sources may be used for hazard identification:

1) Reactive hazard identification involves analysis of events or outcomes that have already occurred. Hazards are identified through investigation of safety occurrences (including close calls), adverse events and hazard reporting from the field (such as rules compliance activities, safety committee meetings and customer reports) where adverse outcomes have been experienced on the system;

2) Proactive hazard identification involves real-time situations, which is the primary job of departmental safety assurance activities through inspections, audits, evaluations, observations and assessments; proper change management; training quality assurance programs; failure trend analysis; and the employee and contractor safety reporting programs. This involves actively seeking to identify hazards and mitigating them effectively before adverse events occur. A specialized subset of proactive hazard identification is predictive identification, which involves the thorough and timely analysis of safety data collected by all departments and functional areas to identify possible negative future outcomes or events; as well as monitoring the system in real time.

3) Facilitated risk assessment workshops is one Enterprise Risk Management (ERM) method used to formally identify and document safety risks. The facilitated risk assessment may be initiated by management or Management Audits, Risk, and Compliance (MARC) as part of the Enterprise Risk Management Process. Safety risks are identified organization-wide, at the entity level, and the business process level in all WMATA departments and offices and analyzed for potential consequences. While the identification and assessment of safety risks is ultimately the responsibility of individual management teams and assigned Safety Risk Coordinators, MARC and SAFE supports the identification, documentation, and repository of clearly defined safety risks, which includes all known risks that could impact WMATA, and related mitigating actions (i.e., internal controls) embedded within internal policies and procedures, other documentation of processes and activities related to oversight of the Safety Management System.

4) The Risk and Control Self-Assessment (RCSA) is another ERM method used to formally identify and document safety risks. The RCSA process allows management or assigned Safety Risk Coordinators to formally self-identify, document, and assess safety risks. The

objective of the RCSA process is to drive awareness, responsibility, and accountability for safety risks and related mitigating actions or controls.

5) FTA and SSOA data and information as required by 49 CFR 673.25(b)(2), as well as industry experience, best practices and lessons learned.

2.5 Employee Reporting Systems

WMATA has multiple avenues by which employees and contractors can report risks and hazards. All hazard reports are properly documented by the receiving party, no matter the source. Investigations of hazards are also properly documented per Policy/Instruction (P/I) No. 10.4 – *Incident and Accident Investigation* and distributed according to that P/I and related procedures.

WMATA's SMS requires all employees to identify hazards, mitigate them immediately if possible, and to report them regardless of action taken.

Employees are encouraged to report through their chain of command, including their immediate supervision, or management if supervision is not available; or through the safety committee process.

If these routes of reporting are not available, or may result in harm to the employee, reporting through other means is available:

- Employees may report any perceived safety issue or hazard to a local safety committee (LSC) representative for investigation and resolution;

- The Safety Hotline is the primary internal safety reporting method available for reporting safety concerns 24 hours a day; 7 days a week. Reports can be made by dialing 202-249-SAFE (7233) or access the electronic form on SAFE's website. The hotline process is documented in OAP 600-12: Safety Hotline Process.

  Once reported to the Safety Hotline, a Safety Officer will be assigned to investigate the reported issue(s) and implement a resolution rapidly. Once implemented the Safety Officer will follow up with the employee on the resolution if contact information is provided. The employee will have the option of speaking to a Safety Officer at any time while maintaining their confidentiality.

- Customer safety complaints received by the Office of Customer Service are forwarded to the responsible department and SAFE. The department investigates the report with support from SAFE personnel and develops and implements corrective action as needed to properly address risk. Employees can conceivably use this process if they are worried about anonymity;

- Safety related complaints received by the OIG are forwarded to the appropriate department for investigation, or SAFE if anonymity is an issue and would be compromised by forwarding to the department. Anonymity, if requested, is maintained for complaints investigated by SAFE and OIG. If hazards are identified during the investigation process, they are properly managed by the department, which is responsible to develop a CAP or other mitigation, document it and monitor implementation.

No matter what the source of information nor which department investigates and resolves the issue, the feedback loop to the reporting employee is required. If the report is anonymous, the outcome of the report, investigation and any corrective action or mitigation will be made available for all employees to review.

2.6 Confidential Close Call Reporting

WMATA became the first rail transit agency to launch a Confidential Close Call Transit Safety Reporting System (C3RS) in July 2013. Amalgamated Transit Union (ATU) Local 689 and WMATA management formed a partnership with the U.S. Department of Transportation's Bureau of Transportation Statistics (BTS), which is part of the Research Innovative Technology Administration (RITA), to establish the program that enhances the safety culture by increasing opportunities for employee reporting of events that have potential for more serious consequences.

The C3RS builds upon the other initiatives Metro has put in place to encourage employees to report safety concerns. Through this confidential program, rail and bus employees have another avenue to report concerns in the service of building a positive safety culture. The Close Call reporting program allows WMATA to gather hazard information, investigate promptly and act effectively to prevent more serious safety incidents, address practical drift or identify and monitor emerging trends.

Close Call is available 24 hours a day; 7 days a week. Employees should report to Close Call when they are involved directly or witness a near-miss incident, or if a reported safety concern persists. The employee's information is kept confidential with the federal law Confidential Information Protection and Statistical Efficiency Act, making the employees information free from being subpoenaed or requested through the Freedom of Information Act (FOIA). Violation of CIPSEA carries penalties of up to $250,000 and/or up to 5 years imprisonment.

To report a Close Call, the employee can contact BTS using closecall.bts.gov or calling 1-888-568-2377 within 24 hours. Once BTS receives the report, a joint peer review team made up of union partners and WMATA personnel reviews the report and provides the Chief Operating Officer (COO) and Chief Safety Officer (CSO) with preventive safety actions to mitigate the reported close call. Once approved, the preventive safety actions are assigned to a responsible party and implemented.

There are conditions when a reporting employee is not protected from discipline, per the BTS MOU. The following events do not qualify for protection from discipline under the Program:

1. The employee's action or lack of action was intended to damage WMATA's operations or equipment, or injure other employees, or the employee's action or lack of action purposely places others in danger (i.e., sabotage);
2. The employee's action or lack of action involved a criminal offense;
3. The employee's action or lack of action violated a traffic safety law leading to a citation (e.g., red light cameras, speed cameras, or observed by law enforcement);
4. The employee's behavior involved substance abuse or inappropriate use of controlled substances;
5. The close call report contains falsified information;
6. The event resulted in a transit agency accident/incident and/or has caused or alleged to have caused any injury, illness, or medical treatment of any kind to any person involved in the event;
7. The event resulted in an identifiable release of a hazardous material/major reportable spill;

8. In addition, the following specific events do not qualify for protection under the Program:
    a. Rail
        i. Station overrun of more than one door leaf
        ii. Exceeding the limits of an absolute or permissive block
        iii. Red signal violation by train or work equipment
        iv. Wrong side door opening
        v. An employee is not exempt from discipline for a violation that WMATA identifies contemporaneously (e.g., any rail vehicle passes a red signal without proper authorization and the control point (ROCC/Interlocking Operator) notices it before the vehicle completely clears the associated switch) before the employee files a close call report. In such situations WMATA may use event recorder information to support discipline. For example, a WMATA official who observes a revenue or maintenance vehicle operate past a signal that requires a stop may use any relevant data recorded by the train's event recorder in pursuing disciplinary action against the employee(s), regardless of whether he/she/they timely file a close call report.
    b. ROCC
        i. Third Rail Power restoration violations to include restoring third rail power when personnel have not cleared and giving personnel permission to restore a Red Tag Outage when personnel have not cleared the work location
    c. Bus
        i. Rollaway bus involving the operator's failure to follow procedures for proper vehicle securement.

2.7 Hazard Investigation

Hazards are investigated in each department as they are reported or identified. Departmental Safety Risk Coordinators facilitate the investigatory activities, which are conducted according to each department's procedures. All investigations will be properly documented per Policy/Instruction (P/I) No. 10.4 – Incident and Accident Investigation and distributed according to that P/I and related procedures.

The purpose of investigation is to evaluate the hazards in terms of reasonable consequences (especially in the case of proactive identification); and to examine the frequency and severity of the consequences. Once these have been established, the safety risk index can be indexed. If the hazard is currently mitigated, investigation involves assessment of the mitigations to establish if they are sufficient to address associated risk, or if changes or additional mitigations are warranted to further reduce risk.

Once the investigation activities have been completed, risk through the identification of the root cause may be assessed. All investigations performed in the departments will be documented fully and made available to SAFE and the EVP for each department/office, once risk is assessed and documented, and corrective action plans developed. These investigations must be ultimately recorded in WMATA's Safety Measurement System's Incident and Accident's module.

2.8 Safety Risk Assessment

The following are the general steps for the Safety Risk Assessment Process:

Step 1: Hazard Identification

Hazard identification and analysis is the first step in the SRM process, providing a key component for the safety management system and formal risk event documentation. Sources of hazard identification were noted above. Risk event identification is a critical step in the risk assessment process, ensuring adequate and timely risk identification. The sooner the risks are identified, the sooner plans to mitigate or manage them can be made. Significant risks not accurately identified or fully understood through detailed analysis, cannot be assessed, prioritized, or managed effectively. In this step, employees identify all possible hazards (e.g., organizational, technical, operational, and environmental). Employees should not attempt to evaluate the hazards but only identify and document them. This activity enables a better understanding of what might hinder or limit the successful delivery of objectives.

Step 2: Hazard Analysis

Effective hazard identification and analysis is dependent on understanding what exactly is meant by safety deficiency, hazard, and consequence. Safety deficiency is the condition that is a source of hazards and or allows the perpetuation of hazards; a hazard is any real or potential condition that can cause injury, illness, death; damage to or loss of the facilities, equipment rolling stock, infrastructure, environment, etc. The potential effect of a hazard is a consequence.

Consequence relates to the effect of a hazard involving injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system or damage to the environment. The consequence is the worst possible but credible consequence to cause actual harm of injury or fatality. A completed analysis ensures that management participants do not mistakenly identify a consequence for the hazard; otherwise, management may not fully understand the actual safety concern and its true potential safety risk, and the condition could worsen.

Step 3: Evaluate Safety Risk

Evaluating safety risk provides a way to measure the potential consequence of the identified hazards and includes evaluating how existing defenses could mitigate the consequences of those hazards. In this step, the evaluation helps determine whether certain consequences have an acceptable level of safety and which hazards require safety risk mitigation.

Safety risk, the chance that the potential consequences of hazards could harm people or equipment, is measured by an indication of how serious the harm could be. Once a hazard has been identified, and the consequence determined, an analysis of the established safety risk considers the Severity (impact) and Probability (likelihood). The risk assessment may take many forms to focus on the key risks that are most relevant and significant to the Agency with the greatest consequences or potential opportunities for expected outcomes.

The evaluation process includes:

1. Determine the Inherent Risk Level
   - Analyzing the likelihood of a consequence occurring – Probability (Inherent)
   - Evaluating the seriousness of a consequence if it does occur – Severity (Inherent)

   Note that determining or ranking the probability and severity is a subjective process. If in doubt, always err on the side of safety.

2. Evaluate current mitigations (Residual Risk Level)
   - Analyzing the likelihood of a consequence occurring with mitigation in place – Probability (Residual)
   - Evaluating the seriousness of a consequence if it does occur with mitigation in place – Severity (Residual)

3. Determine the acceptable safety risk level by using the safety risk evaluation criteria.

   This applies the consideration of Severity (impact) and Probability (likelihood) of a risk event occurring and an assignment of an overall risk rating to ensure prioritization. Safety risk levels are indexed using the Risk Matrix, MIL-STD-882E (i.e., safety risk severity, and probability tables). Refer to Appendix D - Safety Risk Evaluation Criteria based on MIL-STD-882E.

   Safety risk tolerance is viewed in four general categories: Unacceptable, Undesirable, Acceptable with Review, and Acceptable. In determining what is reasonably practicable in the context of safety risk management, consideration is given to the technical feasibility of further reducing the risk and the cost. Showing that the safety risk is As Low as Reasonably Practicable (ALARP) means that any further reduction is either impracticable or grossly outweighed by the cost.

   A formal justification to accept risk outside of acceptable levels (not within tolerance) must be made by Executive Level Management.

   Prioritization of the risk event improves the allocation of resources in response to the potential impact and probability of those risks occurring, and decision-making on risk responses. The priority of risks given the Severity, the importance of the corresponding core service business objective, and the Agency's risk appetite helps management prioritize risks of different severity levels. The risk level of each standard (business) process activity defined by the aggregated inherent and residual risk severity level identified and linked to the process.

Step 4: Mitigate Safety Risk

Risk response is required for risks identified, assessed, and prioritized with an inherent risk level (before control) of Unacceptable and Undesirable. Often, any one of several risk responses will bring the residual risk (after control) in line with the tolerance, and sometimes a combination of risk responses provides the optimum results. Management selects an appropriate risk mitigation strategy from the list below and deploys a risk response.

- Mitigate the action taken to reduce the severity of the risk. Departments change the action or activity so that when the risk occurs, it will only have a minor effect because the threat anticipated and provisions in place to address it.
- Substitute using alternate materials to reduce risk.
- Engineering provides a protective measure that includes engineering the solution for risk reduction.
- Accepting the risk by not changing the actions or activities because the risk is so insignificant, or the risk is so improbable that no change is needed.
- Avoiding (Eliminating) as the department is not susceptible to that type of risk because it avoids the compromising event entirely.
- Sharing the mitigating action or activity so that an outside agency assumes responsibility for addressing a portion of the risk impact.

2.9 Safety Risk Mitigation Roles and Responsibilities

All employees are trained in basic hazard identification and the actions to take when mitigation is required. Employees are trained to do the following if they think a hazard or safety risk requires mitigation:

- Report the hazard to a supervisor;
- Call in a Work Order ticket, describing any immediate hazard;
- Report the hazard at a Safety Committee meeting. Make sure it is documented in the meeting minutes and action items log;
- Call the Safety Hotline anytime at 202-249-SAFE (7233), or use our electronic reporting form; or
- Call the Close Call Reporting System anytime at 1-888-568-2377 or use their online form.

Technical Managers are trained to respond to and investigate hazards, deploy resources at their disposal to address and mitigate hazards under their control; and when additional resources are needed, inform Executive Management in a timely manner of the need for additional resources and why.

Executive Management must allocate resources based on risk, and if resources are not available, ensure that no activities take place until risk is mitigated to an acceptable level.

2.10 Safety Risk Register

A safety risk register serves as an information management tool for specific risks. The safety risk register is used to document departments' hazards, potential consequences associated with the hazards, residual safety risk level rating, and mitigation strategies implemented to minimize the risk associated with the hazard. The monitoring activities ensure the implementation and effectiveness of mitigations. Further, it provides management with an on-going, up-to-date picture of the overarching safety concerns that the department faces during transit service delivery and supporting operations, and controls put in place for safety risk mitigation.

Each department is responsible for maintaining a hazard log or risk register to:

- Document its hazard and risk activities;
- Track its risk and mitigations to ensure that no unacceptable risk is assumed due to error or omission;

- Ensure that corrective action is developed, approved and implemented as required by statute and the WMSC Program Standard; and
- Ensure the corrective action is adequate and appropriate by monitoring the mitigations to assure they effectively reduce risk and no new hazards are created.

Departments may use internal methods to track hazards and risks, but ultimately all entries shall be entered into the hazard management database noted below.

2.11 Hazard Resolution Management and Tracking

Resolution of identified hazards are managed by SAFE and MARC, in collaboration with the responsible department, and approved and monitored by the Executive Level Management. A hazard management database is used for tracking identified hazards and resolution process. The following information is maintained:

- Hazard description;
- Immediate mitigation (if needed);
- Origin of hazard (e; g accident investigation, capital project hazard analysis, employee safety committee);
- Date hazard was identified;
- Hazard analysis results (frequency and severity, hazard score, depending on analysis method);
- Proposed permanent hazard resolution or corrective action plan;
- Hazard resolution verification/follow-up activities;
- Date hazard closed;
- Responsible Hazard Lead and Organizational Subject Matter expert; and
- Other relevant information.

3 Safety Assurance

Safety Assurance is a continuous process constantly interacting with Safety Risk Management.

It is a systematic, ongoing and integrated monitoring and recording of safety performance, which will be used to;

- Verify that safety objectives are being met;
- Identify previously unforeseen hazards;
- Ensure that mitigations in place are effective and not creating new hazards; and
- Collect robust and valuable data on safety that can be analyzed, trended and shared agency-wide for continuous improvement of the SMS.

In addition, Safety Assurance activities assist the agency in identifying and correcting practical drift, effective transit asset management, and establishment of reasonable and achievable safety performance measures.

The Safety Assurance activities at WMATA are described below.

3.1 Safety Data Acquisition and Analysis

WMATA departments and functional areas are each responsible to identify, collect and analyze data on their safety-critical functions.

This information will be used for three purposes:

1. To ensure all departments and functional areas establish and achieve performance targets related to their daily operations, such as rules and procedure compliance, sufficiency and accuracy of procedures and documentation, safety events, proper management of change, and completion of safety-critical tasks in a timely manner;

2. To ensure that system-wide performance measures are being met through monitoring data associated with them in the appropriate departments; and

3. To ensure through wide distribution and sharing of safety data and analyses that all departments and functional areas are aware of trends, hazards and safety performance in all other departments.

Sources of data at WMATA include, but are not limited to:

- The employee reporting systems, including self-reporting;
- Field reports and observations from supervision and managers;
- Preventive maintenance and other scheduled inspections;
- Results from drills and exercises, and critical incident debriefings from actual emergency events;
- Internal safety audits and internal controls reports and activities;
- Quality assurance and quality control inspections, audits and other activities;
- Customer and public comments, complaints and recommendations;
- Employee, passenger and public reports of injury;
- Planning and scheduling data collection;
- Key performance indicators;
- Incident and anomaly reports;
- Investigations (hazards, collisions, derailments, security, etc.);
- NTD data collection and reporting;
- Safety activities (job briefings, awareness campaigns, departmental meetings);
- Safety committees;
- Safety and security certification, system modification and procurement activities;
- Drug and alcohol compliance programs;
- Training and training QA activities;
- Rules and procedures compliance activities;
- “Secret rider” programs;
- Public meetings;
- Safety committee activities and reports; and
- Transit asset management activities

Each department and functional area will develop a standard operating procedure describing

- The type of data they collect;
- The frequency with which it is analyzed;
- The process of development of annual performance targets and objectives related to SMS compliance, how progress is monitored toward those objectives;
- How data on progress is shared system-wide; and
- How corrective actions for deficiencies or non-compliance in SMS are addressed.

All departments are required to observe normal operations, including in the field, and also to gather voluntary, de-identified data and information through its employee reporting program to ensure hazards are identified as soon as possible, that data is collected from the activities to analyze trends and prevent re-occurrences and future adverse consequences.

EVPs are expected to be familiar with safety-related data and performance information for each ESC meeting so that deficiencies and lapses may be appropriately addressed in terms of risk and resources system-wide.

3.2 Rules and Procedure Compliance Activities

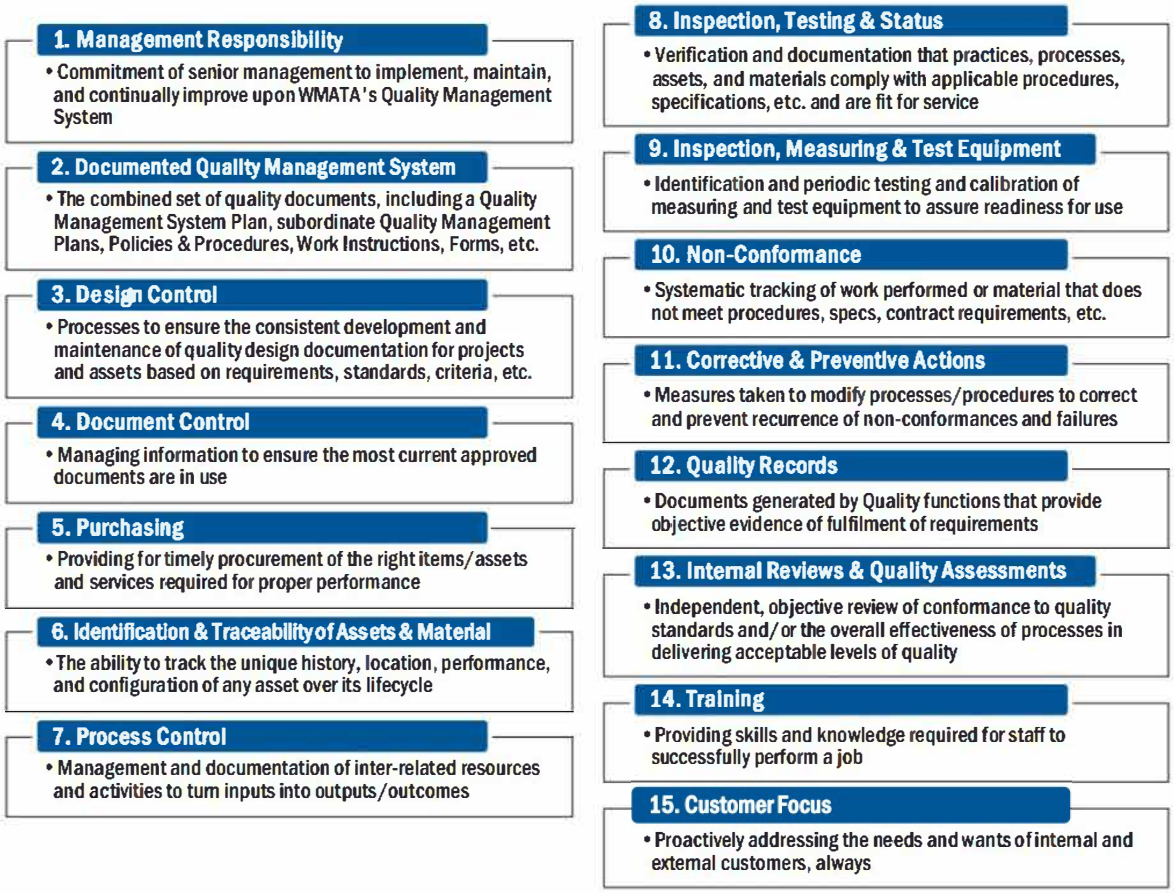
A robust SMS requires ongoing safety assurance activities that assures that continuous performance monitoring is performed in the field with real-time assessment and data analysis to provide management with the timely information as to safety management and performance and meet the requirements of 49 CFR 673.27(b).

WMATA Policy Instruction (P/I) 1.15 - Rule Book Management, establishes procedures for development, revision, maintenance, management, and enforcement of rulebooks. The ESC provides oversight and executive management review of this process to ensure consistency and the integrity of the rules and procedures compliance process. The P/I requires that the departments maintain accurate compliance records. Records will be kept both on observations and on action taken to correct observed deficiencies. Personnel responsible to perform rules compliance will be properly trained and refreshed as needed in rules compliance tasks, activities and proper documentation.

3.3 Quality Management System Plan

The Quality Management System Plan (QMSP) is used to monitor compliance with, and sufficiency of, departmental procedures for operations and maintenance. It used both internally and externally to guide personnel through WMATA's expectations and standards that must be met and maintained to ensure compliance with requirements. The responsibilities, procedures, and documents comprising the Quality Management System (QMS) apply to all offices, departments, and projects within the Authority's responsibility. The QMSP is also used externally to introduce the QMS to the Authority's customers, stakeholders, contractors, suppliers, and vendors. The QMS is structured to address 15 core standards, as summarized below. These have been developed based on international standards (ISO 9001:2015) as tailored to a transit-specific context.

Core QMS Standards



Quality Management Plans (QMPs) describe a department's procedural approach to align the QMSP requirements with the specifics of that department's deliverables. It describes those activities to ensure quality delivery of services and assets. Its purpose is to describe and define the processes necessary for quality operations. The QMP development and implementation is a phased process, similar to the ASP. Each applicable department's QMP includes:

- Inspection and testing requirements
- Desired results or end states
- Process steps to capture practices, and procedures
- Assignment of responsibility and authority
- References to specifications and standards
- Documented procedures for capturing and approving changes and modifications
- Metrics to capture achievements
- Minimum frequency of review/updates appropriate to ensure the department remains adaptive to changing conditions and priorities.

The QMP and supporting documents (procedures and work instructions) integrate requirements of the QMSP. In this way, each office/department develops its own best way for contributing to the safety, reliability, and fiscal responsibility of WMATA. Specific quality procedures translate requirements into the actions producing desired outcomes. The QMP with supporting documents

describes the practices, assigns the personnel (by name or position), the inspection and testing requirements, and the acceptance criteria. It includes any legal requirements, regulations, industry standards, organizational policies, internal guidelines, and best practices necessary to provide the desired outcome. The QMP:

- Assures conformance to requirements
- Meets internal and external requirements
- Provides traceability
- Provides objective evidence
- Provides a basis for training.

3.4 Internal Safety Reviews / Departmental Internal Controls

WMATA has multiple internal safety reviews to monitor compliance with its SMS as described in this plan. These reviews are required under 49 CFR 673.27(b)(2), and include:

1. The triennial internal safety audit program. This program, also required under 49 CFR 674.27(a)(4), is owned and implemented by QICO. Each department and functional area is reviewed for compliance with this ASP once every three years. Non-compliances, deficiencies and failures of SMS require corrective action to be developed and implemented by the department or functional area.

   QICO has a procedure manual and fully documents all triennial audit activities using Procedure Number: QICO-PRO-P01-01 QICO Internal Safety Review Notification and Reporting Procedure. As stated in this procedure, QICO notifies the WMSC and submits any checklists or procedures that will be used during the review, as per the Program Standard, at least 30 calendar days prior to the start of each review. On or before February 1st of each year, QICO submits an annual Safety Review Report to the WMSC under the Accountable Executive's signature. This report includes the following elements:

   - A summary of all completed ISRs performed during the past year;
   - The completed ISR checklists;
   - Findings generated as a result of each ISR; and
   - iCAPAs generated as a result of each ISR.

   The WMSC will approve, conditionally approve, or state it is unable to approve the report in a written response within 45 calendar days of receiving the report. If the WMSC does not approve the report, WMATA will have 15 calendar days to submit a revised report that addresses comments and requested changes. The WMSC may arrange a meeting to discuss comments and requested changes with WMATA personnel. If the SSOA approves the annual report, no further action is necessary.

   All audits are available for ESC review, the department or office audited, and are made fully available to all other departments and areas. The ESC provides oversight and executive management review of this process to ensure consistency and the integrity of the internal safety and security audit process.

   The review of QICO's (and INCP's) SMS compliance is performed by SAFE to avoid conflict of interest.

2. Reviews of safety standards and requirements to ensure they are current. FTA's guidance documentation for implementation of 49 CFR 673.27(b)(1) states that the Agency Safety Plan must addresses the following:
   - Identification of all operations and maintenance procedures (safety standards and requirements, both internal to the agency as well as in recognition of any SSOA or FTA safety standards and requirements) subject to this section;
   - Activities for reviewing safety standards and requirements to ensure they are current;
   - Activities a transit agency will implement to monitor compliance with documented safety standards and requirements;

   Under these requirements, each department will conduct a review of applicable safety standards as part of its internal controls process as described in item 3 below. The process will be fully documented in the internal controls report, and corrective action will follow all requirements for the internal control process.

3. Internal Controls. Each department and functional area will annually audit its own SMS compliance (i.e., its safety policy compliance) to ensure that hazards are identified and addressed through the SRM process, which results in safety risk mitigations monitored through the SA process by persons trained and qualified to do so through safety promotion activities, including its progress toward its safety targets. This program is called internal controls. Each department must have a procedure to perform this activity, which is implemented by its properly trained and qualified Safety Risk Coordinators, with the assistance of SMEs, and the oversight and assistance of QICO or SAFE to ensure compliance.

   The internal controls must be performed annually prior to the start of the revision process to the ASP so that any appropriate necessary modifications to the ASP can be incorporated during the revision process. This requirement aligns with the expectation FTA has expressed in its guidance documentation that continuous improvement activities should be completed in conjunction with the annual review and update of the ASP.

4. Monitoring of Safety Performance Measures. Monitoring of the system-wide Safety Performance Measures requires all departments that collect data directly applicable to the Performance Measures report these measures through their EVPs as directed for discussion at the ESC if requested by the Committee. This activity should be documented as part of the SOPs required of each department or functional area.

5. Monitor information reported through any internal safety reporting programs. Under the requirements of 49 CFR 673(b)(4), FTA has required the SSOA to oversee all internal safety reviews conducted by a transit agency and has provided direction in its guidance documentation that "this section has been expanded to include 'any' internal safety reporting programs, such as an Employee Safety Reporting Program." Pursuant to this requirement, each department and functional area is required to monitor employee reporting in its area and report out monthly on activities related to employees who report safety issues directly to their departments for investigation and remediation. This is

achieved through the local safety committee process and is captured in an Action Log and/or meeting minutes.

SAFE will conduct monthly assessments of the Safety Hotline and any reporting that it or the OIG receives directly, unless the OIG's information is related to an ongoing investigation of SAFE, or anonymity is compromised where it was specifically requested. The OIG will report separately on any investigation of SAFE under Board direction. Departmental and area monthly monitoring information will be provided to the EVP monthly for each area under the EVP's control through the departmental safety committees, and discussed at the ESC if requested by the Committee. In addition, employee reporting summaries will be made available for access by all departments and areas.

Departmental internal safety self-reviews are designed to monitor all activities and functions to identify areas of SMS non-compliances and correct them, identify hazards and implement mitigations to reduce risk to the agency, and to identify any existing mitigations that may be ineffective, inappropriate or were not implemented as intended as required under 49 CFR 673(b)(2).

Any department that has a non-compliance, deficiency or defect in its safety management program must develop a corrective action through its Safety Risk Coordinator, and implement it according to the approved time frame.

3.5 Safety Assurance: Maintenance and Support Functions

In addition to the above described safety assurance activities that apply for all departments, maintenance and related support functions that fall under the purview of the Chief Operating Officer have specific activities for safety assurance that do not occur elsewhere in the agency.

These functions of maintenance control will be fully documented in Maintenance Control Plans, through the respective departments' QMP, processes and procedures for the following areas:

- Preventive, Predictive and Corrective Maintenance;
- Facilities Management;
- Support activities (component repair, equipment repair, overhaul, metrology, transportation, mainline recovery, fabrication);
- Hazard Management, Quality Assurance and Quality Control;
- Lifecycle Planning, including reliability and maintainability;
- Supply Chain, Procurement and Materials Management and Warehousing;
- Engineering; and
- Transit Asset Management support and interface

In addition to the requirements listed below, all Maintenance Control Plans will describe safety management activities are monitored, overseen, verified and documented.

Each area will describe how its plan is developed and maintained, by whom it is authorized, its review and revision interval (annually to occur prior to revision of the ASP) and where it is archived and maintained for the entire agency to review.

3.6 Preventive, Predictive and Corrective Maintenance

For each area requiring maintenance activities, the Maintenance Control Plan will describe as applicable:

- All inspections, their intervals and requirements, and their documentation, verification and distribution;
- The standards (regulatory, industry and internal) for all aspects of maintenance;
- Procedures for all aspects of maintenance and where they are found (OEM manuals, Maintenance Management of Information System, etc.);
- Testing processes and procedures for all maintenance activities;
- Standards and requirements for scheduled maintenance, deferred maintenance and determination (destruction/condemnation/disposal);
- Sources of reporting for deficiencies;
- Equipment, and small and large tools required to perform the maintenance activities, including IT systems, software and hardware; and
- Minimum training requirements for personnel engaged in maintenance activities

3.7 Facilities Management

For each maintenance area that uses or is housed in a physical facility, and for the functions of Plant Maintenance, the Maintenance Control Plan will describe:

- Safety and security procedures for the facilities, to include fire/life safety and security equipment inspections, structural and other safety inspections, access control, lot and yard control, and security and emergency preparedness plans and procedures;
- The standards (regulatory, industry and internal) for all aspects of facility maintenance;
- Procedures and guidelines for all aspects of maintenance and where they are found (OEM manuals, ASME, IBC, local jurisdictions, Maintenance Management of Information System, etc.);
- Standards and requirements for scheduled maintenance, deferred maintenance and BUL determination (destruction/condemnation/disposal);
- Sources of reporting for deficiencies;
- How facilities deficiencies are reported, addressed and tracked to closure;
- Equipment, and small and large tools required to perform the maintenance activities, including IT systems, software and hardware; and
- Minimum training requirements for personnel engaged in maintenance activities

3.8 Support Activities

For each maintenance area that performs support functions, the Maintenance Control Plan will describe as applicable:

- All inspections, their intervals and requirements, and their documentation, verification and distribution;
- The standards (regulatory, industry and internal) for all aspects of maintenance;

- Procedures for all aspects of maintenance and where they are found (OEM manuals Maintenance Management of Information System, etc.);
- Testing processes and procedures for all maintenance activities;
- Special processes that apply to support activities, equipment and tasks;
- Standards and requirements for scheduled maintenance, deferred maintenance and BUL determination (destruction/condemnation/disposal)
- Sources of reporting for deficiencies;
- Equipment, and small and large tools required to perform the maintenance activities, including IT systems, software and hardware; and
- Minimum training requirements for personnel engaged in maintenance activities

3.9 Hazard Management, Quality Assurance and Quality Control

For all maintenance and support areas, the Maintenance Control Plan will describe:

- Procedures and documentation of how hazards are managed in daily activities which includes:
    - Defects and issues found in inspections;
    - Opening of work orders;
    - Tracking of work orders;
    - Closing of work orders; and
    - Failure trend analysis of hazards associated with the maintenance activities in the area.

- Quality Assurance and Quality Control:
  Assurance and control procedures and activities applicable to:
    - Production;
    - Procedures;
    - Parts and supplies;
    - Equipment;
    - Documentation;
    - Data collection and analysis;
    - Schedules;
    - Lifecycle assessment; and
    - Transit asset management.

3.10 Lifecycle Planning

For all maintenance and support areas, the Maintenance Control Plan will describe all procedures and activities supporting lifecycle planning as appropriate.

The requirements include;

- The department or area's input into the acquisition process for its area's new equipment;
- The rehabilitation programs for facilities and equipment under its care and control;
- The determination of useful life; and

- The disposal processes.

IT will also include the process and activities of each department or area for reliability and maintainability studies, which are mandatory for new systems and equipment and rehabilitations, as the process of decision-making for allocation of resources for safety will be fully documented, and lifecycle planning is a critical aspect of that decision-making process.

3.11 Supply Chain, Procurement and Materials Management and Warehousing

For each maintenance area that supplies, stores, manages or distributes materials, the Maintenance Control Plan will describe as applicable:

- All procedures and requirements for acquisition of materials;
- All procedures and requirements for storage of materials;
- All procedures and requirements for distribution of materials;
- All procedures and requirements for testing of materials;
- All procedures and requirements for transportation of materials;
- All procedures and requirements for disposal of materials;
- The standards (regulatory, industry and internal) for all activities involving materials;
- Loss prevention;
- Sources of reporting for deficiencies, hazards and defects;
- Equipment and tools required for all activities involving materials, including IT systems, software and hardware; and
- Minimum training requirements for personnel engaged in activities for these areas.

3.12 Engineering

For all maintenance and support areas, the Maintenance Control Plan will describe all procedures and activities for which engineering support is required.

This will include:

- Changes to equipment design, function and configuration;
- Support in the acquisition process; testing and assessment procedures;
- Changes in procedures, parts, fabrication or methodologies for maintenance;
- Reliability and maintainability studies and assessments;
- Lifecycle planning; failure trend analysis;
- Hazard identification and analysis, including FMEA, FMECA and other engineering assessments; and Departmental/area-wide configuration management support activities, including as-built, schematics and other diagrams.

The MCP sections on engineering will describe how engineering documentation is developed and maintained, by whom it is authorized, its review and revision intervals and where it is archived and maintained for the entire agency to review.

3.13 Transit Asset Management

For all applicable maintenance and support areas, the Maintenance Control Plan will describe all procedures and activities required to support TAMO and the development and maintenance of the Transit Asset Management Plan (TAMP).

3.14 Investigations

49 CFR 673.27(b)(3) requires the transit agency to establish activities described in the Agency Safety Plan to conduct investigations of safety events to identify causal factors.

The FTA's SMS approach requires investigations to apply the "Organizational Approach;" all investigations will seek to identify causal factors associated with the organization instead of simply blaming the person most proximal to the event. Internal investigations of all FTA-defined events are performed by the department or functional area that experienced the event in accordance with the WMATA *Incident and Accident Investigation Policy,* P/I No. 10.4. Key SMS personnel lead the investigation, implement the procedures and ensure the investigation identifies all causal and contributory factors per FTA guidance. SMEs may support the department in their investigation.

SAFE SOP 800-01 – Incidents and Accident Investigations of Rail Bus, and MetroAccess establishes the comprehensive guidelines to investigate Rail Services (RAIL), Bus Services (BUS), vertical transportation and employee incidents and accidents and MetroAccess (MACS) accidents. This SOP is also intended to comply with FTA's Code of Federal Regulations 49 CFR 674 Safety Oversight requirements as outlined in WMSC Program Standard.

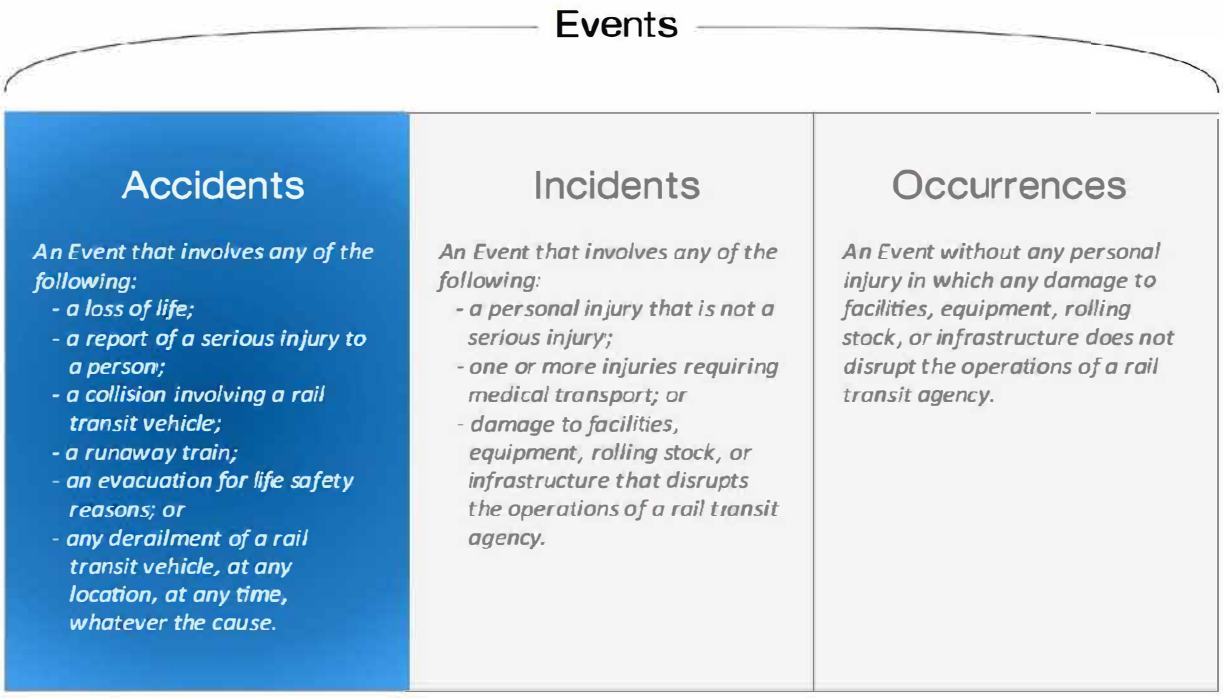
Corrective actions to address risk, non-compliances or deficiencies in SMS, practical drift or other defects in the safety program must be developed by the departments and functional areas, approved by the SSOA and implemented in the approved time frame by the owners.

SAFE may investigate hazards or events reported to them outside of departmental or functional area responsibility. SAFE SOP 800-01 contains investigation procedures for SAFE personnel. Reporting and corrective action falls under the same requirements as described in the paragraph above.

Investigation procedures will contain all the requirements described herein.

3.15 Event Reporting

WMATA is required to report events as defined by the FTA and the SSOA. Part 674 defines three types of safety events: accidents, incidents, and occurrences, and requires a rail transit agency (RTA) to notify its State Safety Oversight Agency (SSOA) and the FTA within two hours of any event classified as an accident. The FTA defines the following three categories of events:



In addition to the requirements for accident notification set forth in the WMSC Program Standard, WMATA must notify both the WMSC and the FTA within two hours of any accident meeting the definition above that occurs on its rail system. Reporting to the WMSC is defined in the Program Standard, and FTA is notified through the USDOT Crisis Management Center (CMC) by email at CMC-01@dot.gov (preferred) or at (202) 366-1863.

However, all of the defined events above merit investigation, as all carry risk for the agency. WMATA will conduct and document investigations of all events defined by the FTA and take appropriate measures to reduce risk and prevent reoccurrence.

3.16 Change Management

Change management is a process for identifying and assessing changes that may introduce new hazards or impact the transit agency's safety performance.

The FTA provides guidance to the effect that a transit agency must determine how a change may impact its safety performance, then evaluate the proposed change through its Safety Risk Management process to analyze the proper mitigations needed to address risk associated with the change.

The ESC is responsible to ensure that change is properly managed at all levels, and to make decisions based on risk to the agency at their own level, to include appropriate resource allocation to manage risk to an acceptable level.

A robust SMS requires that the agency understand that all change introduces risk, and that risk must be managed appropriately through the SRM process.

Change can introduce new hazards or have an impact on the appropriateness or effectiveness of existing mitigations.

Each department and functional area must, both proactively and through its safety assurance activities, ensure it identifies all change, evaluates it appropriately, and implements mitigations so that risk is managed to acceptable levels during and after the change.

No operations may take place in the changed environment until the change is evaluated to determine the impact on safety; and if there is increased safety risk, the risk is mitigated to an acceptable level.

All change at WMATA is managed through this process by each department and functional area through its document procedures for change management, which are implemented through the key SMS personnel.

As defined by the FTA, sources of change at WMATA are:

- External:
    - Regulations;
    - Audits;
    - Environment; and
    - Passengers.

- Internal:
    - Organization;
    - Personnel;
    - Procedures;
    - Equipment; and
    - Systems.

Activities the FTA has identified to ensure that change is properly identified include the following:

- Monitor service delivery activities (must include field observations);
- Monitor operational and maintenance data;
- Assess external information;
- Assess employee safety reporting program;
- Conduct evaluations of the SMS;
- Conduct safety audits, studies, reviews and inspections;
- Conduct safety surveys; and
- Conduct safety investigations.

3.17 Safety and Security Certification

Safety and Security Certification (SSC) is an FTA-defined process of verifying that certifiable elements and items comply with a formal list of safety and security requirements developed for major construction, rehabilitation or vehicle procurement projects.

Certifiable elements are those project elements that, as determined through hazard analyses and/or threat and vulnerability assessments, can adversely affect the safety and security of customers, employees, emergency responders or the public.

The requirements are defined by design criteria, contract specifications, applicable codes, industry safety, and security standards.

SSC is applied to projects that may reasonably be expected to pose hazards or security risks to WMATA passengers, employees and emergency response personnel in agreement with the SSOA.

SSC is accomplished through a collaborative effort between SAFE and the applicable Project Team, which may include representatives from other WMATA departments as well as project contractors.

The SSC process ensures that:

- Design and operating hazards and security vulnerabilities are identified, evaluated and properly controlled or mitigated prior to the commencement of passenger service;
- All safety and security critical elements are evaluated for compliance with all identified safety and security requirements during the design, construction, installation, testing, and start-up phases of a project; and
- All WMATA systems are operationally safe and secure for customers, employees, emergency personnel and the public, prior to entering (or re-entering after modification) revenue service, or returned to use by WMATA personnel.

The process is guided by the FTA's Handbook for Transit Safety and Security Certification (2002) and WMATA's Safety and Security Certification Program Plan (SSCPP).

The Safety and Security Certification Review Committee (SCRC) provides guidance for WMATA's safety and security certification program.

The SCRC is accountable to the ESC for the overall conduct and implementation of the Safety and Security Certification program and approval of certification documentation in accordance with the SSCP. The makeup of the committee varies with the nature of the project as described in the SSCP and may include SMEs.

3.18 System Modification

Physical changes to the system that are not governed by the SSC process often fall under the Engineering Modification Process.

This includes evaluation and assurance that a proposed modification does not create unacceptable or undesirable risk in a system, vehicle, equipment or facility previously certified under the System Safety and Security Certification Process.

Departments and functional areas that contemplate or require a physical change must follow the requirements of OAP 200-6, Engineering Modification Instruction, which defines the process for

initiating, evaluating, processing, and implementing modifications or improvements to rail systems, vehicles, facilities, and equipment.

IT systems requiring physical changes are subject a different process for assessing and addressing risk associated with change. Configuration changes will be routed through the WMATA Design Control Board for review and approval in accordance with WMATA Policy/Instruction No. 4.14 - Design Control Board and Policy/Instruction No. 4.10 - Configuration Control Management.

3.19 Configuration Management

Configuration management encompasses the administrative activities concerned with the creation, operation, maintenance, documentation, controlled change and quality systems of the transit system.

The Configuration Management Program assures WMATA that the documentation of WMATA property, vehicle, equipment and systems design elements, and system-wide documentation is accurate and current.

WMATA has established configuration management process that ensures that:

- All documentation of required tasks, processes and activities are reviewed and revised as needed on an annual basis to coincide with the review and revision of the ASP;
- That all changes to documentation are implemented, as required, through the SRM process and are fully documented; and
- That all documentation is maintained according to the relevant requirements of 49 CFR 673 and 674, and that all documentation is maintained in all forms (versions, revisions, supersessions, obsolescence's) for a minimum of 3 years from the date of creation, with the exception of risk assessment and safety training documentation, which are maintained indefinitely.

WMATA Policy/Instruction No. 4.10 - Configuration Control Management establishes authority and responsibility to manage the risk associated with changes to the configuration of all WMATA infrastructure, Metrorail facilities and Metrobus facilities. The vehicle engineering disciplines manage configuration for revenue and non-revenue vehicles through procedures in their respective areas. The Design Control Board (DCB) is responsible for establishing, maintaining and promulgating architectural and engineering criteria and standards for the design, construction, reconstruction, maintenance, and operation of the Metro system. WMATA Policy/Instruction No. 4.14 - Design Control Board controls infrastructure modifications. OAP 200-06 - Engineering Modification Instruction is used to control changes in rail cars, track and systems. Documentation is controlled and tracked for all of these processes.

All other departments and functional areas use internal procedures to manage organizational, documentation and operational changes through the SRM process.

This includes document and version control; access to and maintenance of documentation; and a document inventory tracking the status of all documentation managed by the department or functional area.

3.20 Procurement

The FTA's guidance documentation for 49 CFR 673.25(b)(1) indicates that "The FTA expects each transit agency to develop measures to ensure that the safety principles, requirements and representatives are included in the transit agency's procurement process."

The departmental and area baseline risk assessments should establish the acceptable risk associated with existing processes and procurement criteria.

When the agency must make:

- New procurements;
- Changes to existing materials, vendors and contracts; or
- Makes changes to the procurement process itself,

WMATA must make these changes to the system per the Safety Risk Management process indicated in the first part of this section.

The process established for procurement follows the same steps as other change:

- The department or area must assess whether the change (procurement) will carry risk, and if that risk must be mitigated in order to implement the change;
- A risk assessment following the principles and procedures delineated in Section 2 must be performed and documented through a qualified and certified individual in the department or area, supported by SMEs where appropriate, including SAFE, engineering and end users;
- Once risk is established, mitigations as needed must be in place before the change can be made; and
- The change (procurement) can be implemented.

Procurement maintains internal documentation of the required tasks and activities to effect procurements within statutory and internal requirements, including the requirements of this section.

3.21 Continuous Improvement

Continuous Improvement is the process by which WMATA examines its safety performance to identify safety deficiencies and carries out a plan to address the identified safety deficiencies. It consists of formal activities designed to evaluate the effectiveness of the SMS.

Specifically, it will:

- Identify the causes of sub-standard performance of the SMS;
- Determine the implications of sub-standard performance of the SMS in operations and maintenance; and
- Eliminate or mitigate such causes.

Its key elements are proper management of all activities through the SRM process; proper change management; compliance activities, including those contained herein in Section 3; and performance auditing.

The FTA considers the auditing process to be the primary means of evaluating SMS performance.

The internal controls are primary in this process because they are performed annually and are completed prior to the beginning of the revision process of the ASP. Thus, performance measures for the system, performance targets for the departments and areas, and safety objectives can be keyed to the areas needing improvement.

Once deficiencies in the SMS are identified, corrective action must be implemented.

3.22 Corrective Action Plans (CAPs)

Safety risks corrective actions have a critical role in Safety Assurance in support of safe delivery of transit agency services. Corrective actions address safety deficiencies and support compliance with requirements, safety risk mitigation, and performance that ensure the safety intent behind requirements is achieved. Further, the role of corrective actions addresses deviations from effective internal controls or mitigating actions (i.e., non-conformance) that might detract from the expected effectiveness, or performance of the safety risk mitigations. This allows for corrective actions to address the deviation and restore the effectiveness of safety risk mitigations reducing risk exposure. After each safety risk assessment, corrective action plans are developed when residual risk levels are not acceptable, controls may not exist, or the design effectiveness of the control to manage each risk to an acceptable level is missing.

Under the direction of the Accountable Executive Corrective Action Plans are required to address:

- Areas of non-compliances, deficiencies or defects in the SMS;
- Risks that require mitigation to an acceptable level; and
- Areas of non-compliance with internal requirements, legal requirements, or other requirements; and by direction of the SSOA or the FTA.

All external CAPs must be reviewed and approved by the SSOA per 674.27(a)(8).

This approval is required prior to beginning implementation of the corrective action, but in exigent circumstances involving immediate protection of life and property, the action may be commenced and then reviewed and accepted or modified by the SSOA.

Section 9 of the WMSC Program Standard indicates the conditions under which WMATA is required to develop and carry out a corrective action.

Appropriate WMATA representatives from QICO, SAFE, and operating departments (such as Rail Transportation, Car Maintenance, Vehicle Engineering, Track & Structures, etc.) will be present to discuss CAP implementation and, if needed, to provide verification documentation to the SSOA.

WMATA's QICO is responsible for CAP coordination on behalf of all WMATA Metrorail departments.

Procedure Number: WMATA-INCP-1.11.01 Corrective Action Procedure establishes the requirements and steps to perform for:

1. Corrective action to eliminate the non-conformance of an asset, work or service; and
2. Preventive action as a proactive measure to eliminate a potential non-conformance from occurring.

A schedule may be developed and implemented to ensure that each department appears at least quarterly to provide status updates and progress reports on CAPs within its purview.

4 Safety Promotion

A robust SMS is dependent upon ongoing management commitment to addressing risk through training and communication. Safety Promotion is the component of SMS that demonstrates this commitment to ensure all employees are properly trained to perform their tasks and activities safely, and to encourage and motivate employees in all departments to communicate openly about safety.

4.1 Competencies and Training

Overview

Instruction in safe methods of operation and safety procedures is included in manuals, handbooks, and other documentation developed for the training and certification of operations and maintenance personnel. Training systems have been developed, by each department (Rail, Bus, FSVT, MTPD, SAFE, CSCM, HR, CFO, and IT) that includes in-house classroom training, on-the-job training and testing.

Each department is responsible for establishing safety-training requirements, in conjunction with SAFE. SAFE teaches the occupational and environmental safety training at the Safety Training Academy at CTF or at WMATA facilities and maintenance shops.

Supervisors and employees are required to review training records periodically for verification that required training and certifications are being completed by employees.

SAFE evaluates departmental safety training programs and provides technical expertise as necessary.

Identification of protective devices and emergency equipment is included in the training documentation and instruction.

In addition, safety posters, bulletins and notices are used as appropriate to enhance safety awareness during all phases of system operations.

Training content is monitored and suggestions for improvement are provided to operating offices.

Proficiency demonstrations and certifications are required of all operations and maintenance personnel.

Safety concerns are incorporated in safety briefings given to personnel prior to their working with equipment or in facilities.

A comprehensive listing of safety-related classes may be found in Appendix E.

4.2 Employee Safety Training

Safety training is conducted by multiple departments. Each department is responsible for establishing training requirements and assuring that the necessary training is accomplished. The following safety-related courses are provided:

New Employee Orientation - Employee orientation is conducted for all new WMATA employees to inform them of the Authority's current departmental programs and procedures, along with SAFE's program requirements for new WMATA employees.

All new employees must attend mandatory safety training including: Emergency Response Awareness Training for Non-operating Personnel or Roadway Worker Protection Training (RWP) for operating personnel; Personal Protective Equipment; Hazard Communication; and Blood Borne Pathogen Training if applicable. In addition, all new employees receive training on the Agency Safety Plan and Hazard Management Program.

First Aid and CPR Training - First Aid, CPR and Automatic External Defibrillator (AED) training is provided to station managers and other employees, as required by class specification. MTPD personnel receive this training at the Police Training Academy and refresher training during mandatory in-service retraining. The American Red Cross or other nationally accredited courses and instruction methodologies are used for First Aid, AED and CPR.

Special Safety Presentations - Special safety training presentations are made at work locations to instruct employees on methods to prevent traffic, passenger, and employee accidents.

Hazardous Materials/Hazard Communication Training - All maintenance and support personnel who are required to use chemicals and hazardous or toxic substances are trained in the safe use of such substances. Employees who move to new positions are provided training in the use of any new chemicals that they may be assigned to use by the supervisor.

Safety Related Operations and Maintenance Training - Categories of safety related work include, but are not limited to, train operators, bus operators, non-revenue (service) vehicle and equipment operators, maintenance of way employees, rail car maintenance employees, elevator and escalator maintenance employees, supervisors, ROCC and Safety personnel, BMNT employees and police officers.
Safety training is embedded in all of the technical and operations training courses provided to these categories of employees.

- Safety training is conducted on Metrorail and Metrobus procedures and rules. Copies of WMATA's standard operating procedures and safety rules are given to all employees who work on the rail and bus system.

- All new train operators are given the Train Operator Training Course, which covers rules, procedures, and actual train operation with an instructor. Each new train operator

candidate is certified by RSTO with both written and practical testing to validate operational readiness and knowledge of operating and safety rules and procedures.

Annually, each train operator is given a refresher course on the rules and procedures. All train operators are re-certified every two years with written and practical testing by RTRA, through the Performance Standardization Program. Each person who fails the annual examination is given special retraining.

The preparation, administration, and maintenance of these examinations and related records are the responsibility of the employee's department/office.
Supervisors perform "ride checks" on train operators to assess knowledge of train operations and the MSRPH.

- All new bus operators are provided the Bus Operator Training Course, which includes traffic regulations, rules, procedures, bus simulator time and hands-on seat time in a bus with an instructor. Bus operators must have a commercial driver's license (CDL). Bus operators are provided annual refresher training, which includes time in the bus simulator.

  Supervisors perform "ride checks" on bus operators to assess knowledge of bus operations and the rules and procedures.

- All new MACS contractor operators are provided the MetroAccess Operator training course. No CDL is required. Annual refresher training is provided, and WMATA contractor supervisors perform "ride checks" and observations of operator performance.

4.3 Safety Rules and Procedures Training

RSTO, RTRA, COO, OPMS, IT, TRES, MTPD, PRMT, OPMS, TSMT, and BUS personnel are trained to perform in accordance with the safety rules and procedures applicable to their office.

OPMS provides job familiarization training to technical skills employees, which includes an overview of basic job safety and applicable MSRPH rules.

All new SMNT, TRST and CMNT Employees receive new hire familiarization training from OPMS which covers, MSRPH, Safety, Maximo (where applicable), and initial craft training.

All new and existing employees of WMATA who will perform work on the Metrorail system ROW are required to attend an initial RWP safety training class conducted by TSMT that has been approved by SAFE, prior to beginning work.

For RWP training:

- An RWP exam is given to the employee, to test their knowledge on the facts of RWP.
- A certification ID badge is issued by TSMT, upon successfully passing the RWP exam.
- RWP Safety Training is conducted by TSMT (for non-Operations personnel and contractors requiring level 2 or 4 CRWP) and SAFE (for contractors requiring level 1 CRWP).
- Successful completion of refresher training is required annually.

The rules and procedures for each office are established by the appropriate office and coordinated with SAFE. Violations of Metrorail or Metrobus rules, regulations, and/or procedures may result

in disciplinary action (cautions, retraining, reprimand, disqualification, suspensions, or dismissals) in accordance with the rulebooks, policies and the union contract.

Emergency Preparedness Training - Front-line employees are provided training on the National Incident Management Systems through FEMA's NIMS-700 online course. All non-operating employees are provided Emergency Response Awareness Training, as part of New Employee Orientation. Existing non-operating personnel are also provided this training by their assigned departments. Operating employees are provided emergency response training, "Warning Signs" developed by the National Transit Institute. This training is provided by the departments to which employees are assigned. Bus and rail employees are also provided fire extinguisher training, where they actually extinguish a fire using an extinguisher.

Joint Supervisor Training - Personnel from jurisdictional law enforcement, fire departments and transportation departments are provided training in their role to manage traffic and pedestrian flow in the event of a major Metrorail service delay.

Industrial Hygiene Training and Education - Employees who use or come in contact with chemical, physical or biological hazards receive training in hazard mitigation, industrial hygiene principles and in the care and use of personal protective equipment. SAFE and HR/OHAW provide training in the proper handling of biologically contaminated materials such as tools, syringes and clothing.

WMATA Safety Management Course - It is strongly recommended that all managers and supervisors attend this five day course presented by SAFE. It is intended to provide the knowledge of OSH regulations, WMATA safety policies, procedures and practices, to enable managers and supervisors to develop effective safety programs at their facilities and work areas.

OSH Required Safety Training - The following required OSH training courses are identified in the training database for each job classification as required by employee position descriptions and work assignments:

- Personal Protective Equipment
- Respiratory Protection
- Hearing Conservation
- Hazard Communication
- Permit Entry Confined Space
- Confined Space Awareness
- Powered Industrial Truck
- Electrical Safety
- Fall Protection
- Aerial Lifts
- Cranes
- Powered Work Platforms
- Hazardous Waste Operations and Emergency Response
- First Responder – Operations
- Environmental Compliance Officer
- Hazardous Waste Management
- DOT Hazardous Materials
- Fire Extinguisher Training
- Lockout/Tagout
- Other courses as required

4.4 Contractor Safety

Contractors are responsible for ensuring compliance with the most stringent provisions of the applicable occupational safety and health statutes and regulations of the District of Columbia, State of Maryland, Commonwealth of Virginia or political subdivision in which the work is being performed, and the U.S. Department of Labor OSH standards.

All contractors who perform work on, or interface with the operating system are required by

contract to verify that supervisors and assigned employees attend contractor roadway worker protection training. Each contract also requires compliance with applicable Federal and state OSH regulations.

Contractors must submit to project management all required safety training certifications and documentations of course completion that are pertinent to the work to be performed under the contract. SAFE reviews the certifications and documentation to verify that they are valid and that the training meets all current requirements. SAFE also performs regular safety inspections and audits of contractor work sites to review training records and assess contractor safety compliance. Deficiencies are brought to the attention of the contractors' project managers for corrective action.

The contractor must submit a construction safety plan to WMATA's representative for review prior to commencement of work. The contractor must within five (5) days after receipt of Notice to Proceed (NTP), submit through WMATA's representative to SAFE, a request for the Authority to schedule and conduct the roadway worker protection training for all contract personnel who will be engaged in the performance of contract work on or above the Roadway.

SAFE will schedule and conduct contractor roadway worker protection training for all contractors requiring level 1 CRWP. Contractor training and certification must be renewed annually. The contractor must not perform work at the contract site(s) on or above the Roadway, until all personnel of the contract work force have attended the RWP training and have been furnished evidence of completion. The contractor must also follow all applicable MSRPH rules and procedures while working in the operating rail system. Other training may include, but not be limited to, Confined Space Training. Copies of training documents must be forwarded to SAFE prior to work.

Additional Contractor requirements may be found at the Construction Safety and Environmental Manual located on the SAFE website.

4.5 Training Recordkeeping

All training records are maintained in a central training database. The course owners (i.e., those giving the course) are responsible for updating and maintaining their training rosters in this database.

All RWP training records for employee's safety training are maintained and administered by TSMT. TSMT will supply to HRTM the results of initial training and recertification RWP testing for their records.

All RWP training records for contractor's safety training are maintained and administered by SAFE.

4.6 Compliance with Training Requirements

Training requirements for each position and employee are included in the training database.

Audits can be performed using the database to review training records of individual employees to determine compliance with training requirements.

Per the QMSP, it is the responsibility of each department head or their designee to develop and

maintain a required training matrix for each position and employee within their department and to verify that the matrix is updated and maintained. Periodic notifications are sent to supervisors if required courses are not completed within the required period.

4.7 SMS-specific Training Requirements

The FTA has provided in its guidance documentation for 49 CFR 673.29 its expectation that each transit agency establishes a comprehensive safety training program for those directly responsible for safety. WMATA has identified three SMS employee categories whose training is based on their SMS involvement:

1) Individuals directly responsible for safety must meet the requirements of 49 CFR 672 (Public Transportation Safety Certification Training Program), including a 2-year refresher training interval. These individuals are those whose primary job function includes the development, implementation and review of the agency's safety plan, 49 CFR 672 requirements, and/or the SSOA requirements.

   This group includes the Chief Safety Officer, Assistant Chief Safety Officers, Deputy Chiefs of Rail, Safety Certification and Engineering, and Occupational Safety and Health, the Safety Operations Manager, the Fire Marshal, and the Vice President of Quality Assurance, Internal Compliance & Oversight.

2) Safety Risk Coordinators are present at the departmental level and are designated to support the Accountable Executive and CSO in implementing and operating the Agency Safety Plan.

   These individuals are identified in Appendix C by job title. Required training includes: (a) One (1) hour course on SMS Awareness (FTA/TSI E Learning); Two (2) hour course on Safety Assurance (FTA/TSI E Learning) and a 20-hour course on SMS Principles for Transit (FTA/TSI, instruction-led)

3) All WMATA personnel must have initial SMS training commensurate with their job duties and responsibilities upon employment at the agency, or within the first year of this Plan's implementation, Refresher training is offered as necessary.

4.8 Safety Communications

Effective safety communication is one of the foundational philosophies of SMS. Its purposes are to:

- Ensure that personnel are aware of the SMS;
- Convey safety-critical information;
- Explain why particular safety actions are taken;
- Explain why safety procedures are introduced or changed; and
- Provide feedback on employee-reported hazards and safety concerns.

The primary safety communication responsibility of Executive Management at WMATA under the requirements of 673.23(c) is to actively and personally communicate the Safety Management Policy to all employees and contractors.

Any changes to the Safety Management Policy must be approved and distributed by the ESC to all employees.

This is primarily implemented through the committee process, but every executive is also required to visibly endorse the Safety Management Policy to employees in the area they control.

4.9 Hazard and Safety Risk Information

Information on Hazards and Safety Risks relevant to employees' roles and responsibilities is primarily conveyed through Job Hazard Analyses (JHAs). These JHAs are conducted using OSHA's methodology, both by SAFE and operational departments, in concert with SMEs and/or the Safety Risk Coordinator of that area. JHAs are maintained on the SAFE internal website and are reviewed and updated whenever new processes are introduced.

Employees may also obtain relevant job hazard information by the GHS Safety Data Sheet (SDS), referenced below in the Hazardous Materials section. Finally, hazards present in the hazard management database are accessible to employees. These hazards are identified by mode and location, so that employees may review any that may be present in their workplace.

Formal hazards and resulting mitigations identified as part of the Safety Risk Management component will be made available for employees to query by location and/or department through the risk register/hazard management database. Additionally, employee safety reporting hazards will be communicated to personnel through a quarterly newsletter published by SAFE.

4.10 Safety Committees

The Executive Safety Committee (ESC) is the primary group responsible to provide guidance and direction to the agency and to the Accountable Executive on acceptable and unacceptable risk, resource allocation, the status of SMS implementation for each of their areas of control and the promulgation of safety policy and SMS agency-wide.

The ESC is composed of the Accountable Executive and all Executive Vice Presidents reporting to the Accountable Executive. Its Chair is the SMS Executive, the Chief Safety Officer. Members may invite departmental and area personnel, and SMEs, to attend on an as-needed basis, but they do not have voting powers. The ESC may establish subcommittees, such as the SCRC and the Rules Subcommittee (see next paragraph), on an as needed-basis. The ESC meets monthly, and the agenda for the ESC will be published in advance. Each EVP may present a report on the SMS status of their area of control (all four components) as well as address any deficiencies, resource issues, investigations or corrective actions ongoing in the area with the other members of the ESC. Each EVP may also report progress on safety performance measures, targets and objectives. The ESC is established under WMATA's Policy/Instruction No. 10.2 – Safety Committees.

WMATA Policy/Instruction No. 1.15 - Rule Book Management establishes procedures for development, revision, maintenance, management, and enforcement of rulebooks. The ESC provides oversight and executive management review of this process to ensure consistency and the integrity of the rules and procedures modification process. These revisions are made on an as-needed basis. The ESC Rules Subcommittee is charged with, in part, ensuring Metro modal rulebooks are developed, written, communicated and followed in a consistent manner. The MSRPH is scheduled to be formally reviewed and revised every two years, but it is reviewed annually to ensure that there is no conflict with the Agency Safety Plan. This annual review takes place immediately after the annual approval and submission of the ASP to the SSOA.

Special Orders, Permanent Orders or Temporary Orders are issued as interim measures until permanent changes are made in the MSRPH. To ensure the appropriate level of executive management oversight, the MSRPH, RWPM, BSEH, and Special Orders, Permanent Orders, Temporary Orders and Change Orders that modify or are intended to permanently establish rules and procedures are issued under the authority and signature of the Accountable Executive.

Under the requirements of 673.29(b), FTA has provided guidance that the ESC must provide information on hazard resolution and SRM, safety performance, and resource issues agency-wide. This is implemented through the ESC's reporting to the lower-level safety committees listed below. In addition, the ESC may provide monthly reports on SMS status to the SSOA.

The Departmental Safety Committees (DSCs) are technical management-level safety committees that serve as the intermediary between the respective Local Safety Committees (LSCs) and the ESC. WMATA currently has DSCs for Bus, Rail and Access Services, as well as MTPD, CMNT, PLNT, SMNT and ELES. A SAFE representative attends each DSC and provides support and guidance to the committee in the SRM and hazard management process according to their charter. Unresolved hazards from the DSC are forwarded to the ESC. DSCs are authorized to re-structure membership as required by their needs.

Local Safety Committees are front-line level safety committees established to address local safety issues through the SRM process and to assist in developing effective safety programs. There is typically one LSC at every major facility, and all crafts and employee categories must have available representation on an LSC. The LSCs establish and foster a close working relationship with employees, unions, and management regarding safety issues. Employees are trained that they may report any perceived safety issue or hazard to their LSC representative for investigation and resolution if they choose to do so. SAFE staff also serve as advisors to the LSCs. Membership is determined by each individual committee charter and will include local supervision, union representation, and non-management employees. Unresolved hazards from the LSC are forwarded to the DSC, and in the absence of a DSC, directly to the ESC.

4.11 Hazardous Materials

All maintenance and support personnel who are required to use chemicals and hazardous or toxic substances are trained in the safe use of such substances.

Employees who move to new positions are provided training in the use of any new chemicals that they may be assigned to use by the supervisor.

SAFE is responsible for developing procedures that ensure compliance with the hazardous materials standards by all WMATA employees and implementing the safety assurance process for hazardous materials.

The GHS Safety Data Sheet (SDS) review process is incorporated into OAP 200-05 Hazard Communication Program. All chemicals and hazardous materials used by WMATA employees or in the WMATA operating system shall be evaluated and approved by SAFE prior to use or testing of the product, in accordance with the Hazard Communication Program.

The using organization must ensure that SAFE has reviewed and has submitted written approval of requested chemicals, prior to procurement, including procurement utilizing blanket orders, petty

cash, purchase cards, construction specifications or equipment specifications.

PRMT does not process requests for chemical products without a written approval from SAFE and an approved SDS number on file for that product.

PRMT will implement the required quality control procedures to ensure that only chemical and hazardous materials, previously reviewed and approved by SAFE and assigned a unique SDS number, are accepted by the receiving storerooms. Substitutes for chemical products and hazardous materials will have prior SAFE review and approval.

All users of any approved product must read the Evaluation/SDS Approval prior to using the product and follow all instructions and precautions.

SAFE may conduct site visits where chemicals are being used to ensure that workers are aware of the hazards and that they are using the proper PPE.

Access to the approved SDSs is available through the SAFE Intranet Website. Departments whose employees use hazardous chemicals and materials may also have links from their departmental Websites to the SDS Website.

4.12 Environmental Management

All executives, directors, managers, supervisors and employees are responsible for environmental compliance and have a personal and corporate responsibility to incorporate this commitment into daily activities and functions. Environmental management and compliance must be integrated into all appropriate decision-making procedures, programs, tasks and other activities a component for addressing environmental concerns and requirements.

Industrial, maintenance, support and construction activities at WMATA must comply with applicable federal, state and local environmental protection laws, standards and regulations.

The Environmental Management Policy and Manual (EMPM) serves as the foundation for WMATA's environmental program and the Environmental Standard Operating Procedures (ESOPs) serve as a daily operations reference for environmental compliance. Specific environmental management policies and procedures are included in the following documents: WMATA's EMPM (SAFE/EMAC Website); WMATA's ESOPs (SAFE/EMAC Website); WMATA Environmental Design Criteria (DECO Website); and WMATA's Construction Safety and Environmental Manual (SAFE Website).

Senior managers at each facility are assigned collateral duties as Environmental Compliance Officers (ECOs) and Deputy Environmental Compliance Officers (DCOs). These individuals are trained to perform their compliance duties and are responsible for ensuring compliance with applicable environmental regulations. SAFE is responsible for providing technical advice to the ECOs and DCOs and for monitoring regulatory compliance.

4.13 Drug and Alcohol Compliance

WMATA has developed a Substance Abuse Policy and Employee Assistance Program to ensure a safe environment for the public and WMATA employees.

The Office of Occupational Health and Wellness (OHAW) has primary responsibility for administering a Substance Abuse Testing Program in accordance with 49 CFR Part 40 - *Procedures for Transportation Workplace Drug and Alcohol Testing Programs* and 49 CFR Part 655 - Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations. WMATA Policy/Instruction No. 7.7.3/6 - Drug and Alcohol Policy and Testing Program establishes requirements and responsibilities for administering the required programs. The Employee Assistance Program supports the agency through referring employees to appropriate medical and/or rehabilitation treatment, and counseling for a variety of issues that may interfere with employees being able to safely perform job responsibilities, tasks and activities.

OHAW provides safety assurance for this program and monitors the Drug and Alcohol Testing Program for WMATA's safety-sensitive Contractors to ensure Metro's compliance with FTA regulations.

Appendix A - Definitions

Accident means an Event that involves any of the following: A loss of life; a report of a serious injury to a person; a collision of public transportation vehicles; a runaway train; an evacuation for life safety reasons; or any derailment of a rail transit vehicle, at any location, at any time, whatever the cause.

Accountable Executive means a single, identifiable person who has ultimate responsibility for carrying out the Public Transportation Agency Safety Plan of a public transportation agency; responsibility for carrying out the agency's Transit Asset Management Plan; and control or direction over the human and capital resources needed to develop and maintain both the agency's Public Transportation Agency Safety Plan, in accordance with 49 U.S.C. 5329(d), and the agency's Transit Asset Management Plan in accordance with 49 U.S.C. 5326.

Administrator means the Federal Transit Administrator or the Administrator's designee.

Chief Safety Officer means an adequately trained individual who has responsibility for safety and reports directly to a transit agency's chief executive officer, general manager, president, or equivalent officer. A Chief Safety Officer may not serve in other operational or maintenance capacities, unless the Chief Safety Officer is employed by a transit agency that is a small public transportation provider as defined in this part, or a public transportation provider that does not operate a rail fixed guideway public transportation system.

Contractor means an entity that performs tasks on behalf of FTA, a State Safety Oversight Agency, or a Rail Transit Agency, through contract or other agreement.

Corrective action plan means a plan developed by a Rail Transit Agency that describes the actions the Rail Transit Agency will take to minimize, control, correct, or eliminate risks and hazards, and the schedule for taking those actions. Either a State Safety Oversight Agency or FTA may require a Rail Transit Agency to develop and carry out a corrective action plan.

Equivalent Authority means an entity that carries out duties similar to that of a Board of Directors, for a recipient or subrecipient of FTA funds under 49 U.S.C. Chapter 53, including sufficient authority to review and approve a recipient or subrecipient's Public Transportation Agency Safety Plan.

Event means any Accident, Incident, or Occurrence.

FRA means the Federal Railroad Administration, an agency within the United States Department of Transportation.

FTA means the Federal Transit Administration, an operating administration within the United States Department of Transportation.

Hazard means any real or potential condition that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment.

Incident means an event that involves any of the following: A personal injury that is not a serious injury; one or more injuries requiring medical transport; or damage to facilities, equipment, rolling stock, or infrastructure that disrupts the operations of a transit agency.

Investigation means the process of determining the causal and contributing factors of an accident, incident, or hazard, for the purpose of preventing recurrence and mitigating risk.

National Public Transportation Safety Plan means the plan to improve the safety of all public transportation systems that receive Federal financial assistance under 49 U.S.C. Chapter 53.

Occurrence means an Event without any personal injury in which any damage to facilities, equipment, rolling stock, or infrastructure does not disrupt the operations of a transit agency.

Operator of a public transportation system means a provider of public transportation as defined under 49 U.S.C. 5302(14).

Performance measure means an expression based on a quantifiable indicator of performance or condition that is used to establish targets and to assess progress toward meeting the established targets.

Performance target means a quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a time period required by the Federal Transit Administration.

Person means a passenger, employee, contractor, pedestrian, trespasser, or any individual on the property of a rail fixed guideway public transportation system.

Public Transportation Agency Safety Plan means the documented comprehensive agency safety plan for a transit agency that is required by 49 U.S.C. 5329 and this part.

Public Transportation Safety Certification Training Program means either the certification training program for Federal and State employees, or other designated personnel, who conduct safety audits and examinations of public transportation systems, and employees of public transportation agencies directly responsible for safety oversight, established through interim provisions in accordance with 49 U.S.C. 5329(c)(2), or the program authorized by 49 U.S.C. 5329(c)(1).

Rail fixed guideway public transportation system means any fixed guideway system that uses rail, is operated for public transportation, is within the jurisdiction of a State, and is not subject to the jurisdiction of the Federal Railroad Administration, or any such system in engineering or construction. Rail fixed guideway public transportation systems include but are not limited to rapid rail, heavy rail, light rail, monorail, trolley, inclined plane, funicular, and automated guideway.

Rail transit agency means any entity that provides services on a rail fixed guideway public transportation system.

Risk means the composite of predicted severity and likelihood of the potential effect of a hazard.

Risk mitigation means a method or methods to eliminate or reduce the effects of hazards.

Safety Assurance means processes within a transit agency's Safety Management System that functions to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that the transit agency meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

Safety Management Policy means a transit agency's documented commitment to safety, which defines the transit agency's safety objectives and the accountabilities and responsibilities of its employees in regard to safety.

Safety Management System (SMS) means the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing risks and hazards.

Safety Management System (SMS) Executive means a Chief Safety Officer or an equivalent.

Safety performance target means a Performance Target related to safety management activities.

Safety Promotion means a combination of training and communication of safety information to support SMS as applied to the transit agency's public transportation system.

Safety risk assessment means the formal activity whereby a transit agency determines Safety Risk Management priorities by establishing the significance or value of its safety risks.

Safety Risk Management means a process within a transit agency's Public Transportation Agency Safety Plan for identifying hazards and analyzing, assessing, and mitigating safety risk.

Serious injury means any injury which:

(1) Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received;

(2) Results in a fracture of any bone (except simple fractures of fingers, toes, or noses);

(3) Causes severe hemorrhages, nerve, muscle, or tendon damage;

(4) Involves any internal organ; or

(5) Involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

Small public transportation provider means a recipient or subrecipient of Federal financial assistance under 49 U.S.C. 5307 that has one hundred (100) or fewer vehicles in peak revenue service and does not operate a rail fixed guideway public transportation system.

State means a State of the United States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, Guam, American Samoa, and the Virgin Islands.

State of good repair means the condition in which a capital asset is able to operate at a full level of performance.

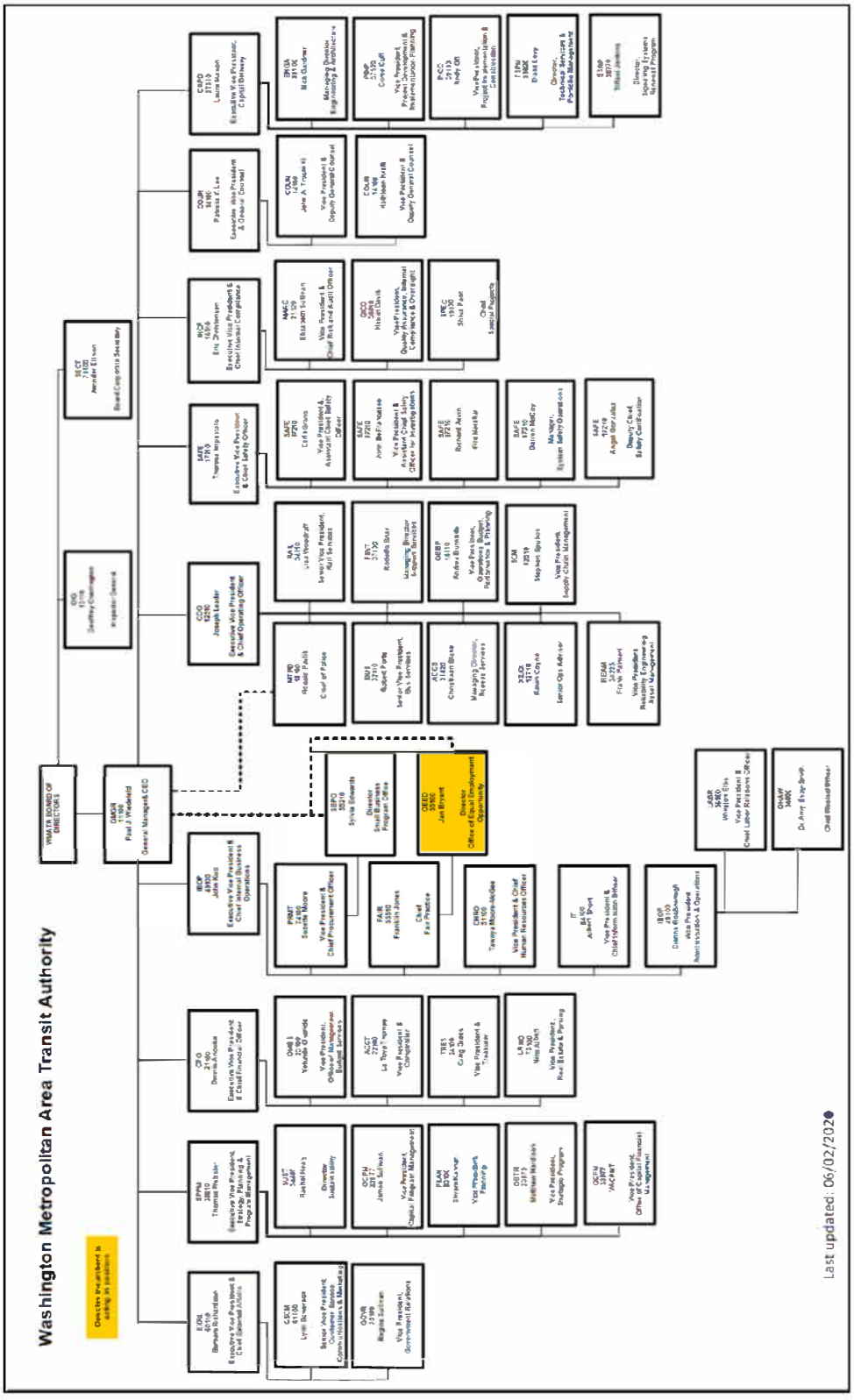
State Safety Oversight Agency (SSOA) means an agency established by a State that meets the requirements and performs the functions specified by 49 U.S.C. 5329(e) and the regulations set forth in 49 CFR part 674.

Transit agency means an operator of a public transportation system.

Transit Asset Management Plan means the strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles, for the purpose of providing safe, cost-effective, and reliable public transportation, as required by 49 U.S.C. 5326 and 49 CFR part 625.

Vehicle means any rolling stock used on a rail fixed guideway public transportation system, including but not limited to passenger and maintenance vehicles.

Appendix B – Org Chart



Appendix C – Safety Risk Coordinators

Organization	Job Title
CAPD	Director, Capital Improvement Program
CFO	Director, Management and Analysis
ROCC	VP of ROCC and Strategic Transformation
COOe ACCS	Operations Manager
COOe BTRA	Project Manager
COOe BMNT	Manager, Administrative Service
COOe MTPD	Captain/DSC Chair
COOe RSTO	Rail Operations Supervisor
COOe TRST	Manager, Incident Investigation
COOe ATCM	Assistant General Superintendent ATC/COMM
COOe TRPM	Special Project Manager
COOe MOWE	Chief
COOe CMNT	Project Coordinator
COOe SCM	Director Storerooms and Material Logistics
COOe PLNT	Manager, Incident Investigation
COOe ELES	Assistant General Superintendent
COOe SMNT	Assistant General Superintendent ATC/COMM
COOe OBPP	Project Manager
COOe REAM	Director, TAMO
COUN	COUN Advisor for Safety
EXRL	Federal Relations Officer
IBOP	Principal Strategic Program Manager
INCP	Director, QICO
SAFE	Safety Operations Manager
SPPM	Director, Capital Budget Management

Note: Assignments are subject to change due to staffing adjustments. Visit the SAFE website for the most recent version and personnel contact information.

Appendix D – Safety Risk Evaluation Criteria based on MIL-STD-882E

Hazard Categorization

Included in this section is the method that WMATA uses to categorize all identified hazards. Hazards are normally categorized in terms of severity and probability of occurrence.

Hazard Severity

Hazard severity is a subjective determination of the worst case that could be anticipated to result from human error, design inadequacies, component failure or malfunction. The categories of hazards based on the MIL-STD-882-E are as follows:

Category 1: Catastrophic – Operating conditions are such that human error, design deficiencies, element, subsystem or component failure or procedural deficiencies may cause death or major system loss and require immediate termination of the unsafe activity or operation.

Category 2: Critical – Operating conditions are such that human error, subsystem or component failure or procedural deficiencies may cause severe injury, severe occupational illness or major system damage and require immediate corrective action.

Category 3: Marginal – Operating conditions are such that they may result in minor injury, occupational illness or minor system damage and are such that human error, subsystem or component failures can be counteracted or controlled.

Category 4: Negligible – Operating conditions are such that human error, subsystem or component failure or procedural deficiencies will result in less than minor injury, occupational illness or less than minor system damage.

The categorization of hazards is consistent with risk-based criteria for severity; it reflects the principle that not all hazards pose an equal amount of risk to personal safety.

Hazard Probability

A hazard probability may be derived from the analysis of transit system operating experience, evaluation of WMATA safety data, the analysis of reliability and failure data, or from historical safety data from other passenger rail systems or bus systems.

Probability of Occurrence of a Hazard

Description	Probability Level	Frequency For Specific Item(s) (Events/Hour)	Selected Frequency For Fleet or Inventory (Multiple of Single Items)
Frequent	A	Likely to occur frequently (Greater than 10^{-3})	Continuously experienced (10^{-2}). MTBE is less than 1000 operating hours
Probable	B	Will occur several times in the life of the item (10^{-5} to 10^{-3})	Will occur frequently in the system (10^{-3}). MTBE is equal to or greater than 1000 operating hours and less than 100 000 operating
Occasional	C	Likely to occur sometime in the life of an item (10^{-6} to 10^{-5})	Will occur several times (10^{-4}). MTBE is equal to or greater than 100,000 operating hours and less than 1,000,000 operating
Remote	D	Unlikely but possible to occur in the life of an item (10^{-7} to 10^{-6})	Unlikely but can be expected to occur (10^{-6}). MTBE is greater than 1,000,000 operating hours and less than 100,000,000
Improbable	E	So unlikely, it can be assumed occurrence may not be experienced (Less 10^{-7}	Unlikely to occur, but possible (10^{-7}). MTBE is greater than 100,000,000 hours.

*MTBE = Mean time between events

Hazard Risk Assessment

WMATA has adopted a system for assessing the level of risk for each identified hazard to determine what action(s) must be taken to correct or document the hazard risk. This risk assessment system has been incorporated into the formal system safety analysis that enables the ESC decision-makers to understand the amount of risk involved in accepting the hazard in relation to the cost (schedule, cost, operations) to reduce the hazard to an acceptable level.

The Risk Assessment Matrix below identifies the Hazard Risk Index (HRI) based upon hazard category and probability and the criteria for defining further actions based upon that index.

HAZARD FREQUENCY	SEVERITY CATEGORY 1	SEVERITY CATEGORY 2	SEVERITY CATEGORY 3	SEVERITY CATEGORY 4
Frequent (A)	1A	2A	3A	4A
Probable (B)	1B	2B	3B	4B
Occasional (C)	1C	2C	3C	4C
Remote (D)	1D	2D	3D	4D
Improbable (E)	1E	2E	3E	4E

Hazard Risk Index	Criteria by Index
1A, 1B, 1C, 2A, 2B, 3A	Unacceptable
1D, 2C, 2D, 3B, 3C	Undesirable – Management (ESC) decision
1E, 2E, 3D, 3E, 4A, 4B	Acceptable with ESC review
4C, 4D, 4E	ESC review will determine action required

Follow-up actions resulting from the risk assessment will be as follows:

Unacceptable: The ESC will review a hazard of this level of risk and the hazard must be mitigated in the most expedient manner possible before normal service may resume. An interim corrective action may be required to mitigate the hazard to an acceptable level while the permanent resolution is in development.

Undesirable: The ESC will review a hazard of this level of risk and the hazard must be mitigated unless a documented decision to manage the hazard until resources are available for full mitigation is issued by the CSO and forwarded to the SSOA (rail hazards only) for review and approval or disapproval.

Acceptable with review: The ESC will review a hazard of this level of risk and the CSO will determine if the hazard is adequately controlled or mitigated as proposed.

ESC review will determine action required: The ESC will review a hazard of this level of risk and determine if further mitigation or control is required.

Appendix E – Safety-related Training by Group

SAFE (provided and/or outsourced)

- Asbestos
- Bloodborne Pathogens
- Body Mechanics
- Compressed Gas Safety
- Confined Space Entry
- CPR/AED/First Aid
- Crane, Derrick, and Hoist Safety
- Crawler, Locomotive, and Truck Cranes
- Defensive Driving
- Environmental Compliance, Deputy Compliance Officer
- Electrical Safety Work Practices – Qualified Person
- Electrical Safety Work Practices – Awareness
- Emergency Action Plan
- Employee Alarm Systems
- Fall Protection
- Fire Extinguisher Awareness
- Fire Prevention Plan (Fire Watch)
- Fixed and Portable Ladders
- Hand and Portable Power Tools
- Hazard Communication
- Hazardous Waste Management
- Emergency Response Operations Level
- Hearing Conservation
- Hot Work Permits, Welding and Cutting
- Housekeeping
- Incident and Injury Investigations
- Lockout/Tagout
- Machine Guarding/Conveyors/Metal Working Machinery
- Manlifts/Aerial Lifts
- New Employee Orientation – Safety
- OSHA 10 Hour Construction
- OSHA 10 Hour General Industry
- OSHA 30 Hour for Construction
- OHSA 30 Hour for General Industry
- Personal Protective Equipment
- Pesticide Safety
- Power Presses (Mechanical and Hydraulic)
- Respiratory Protection
- Safety Observations
- Scaffolding
- Slings
- Safety Management Systems – Agency Safety Plan
- Safety Measurement Systems – Data Management
- Storage and Handling of Flammable and Combustible Liquids
- Supervisor Safety Management Program

Rail Operations Quality Training

- Train Operations Training
- Central Control Supervisor Training
- Station Manager Training
- Interlocking Operations Training
- Rail Operations Supervisor

Bus Operations Training

- Remedial Bus Operator Training
- Defensive Driving for BMNT Mechanics
- Defensive Driving for Non-Revenue
- Bus Maintenance SOP NPB Training
- DriveCam
- Line Platform Instructor Training / Refresher
- Bus and Rail Assault Response
- Bus Operator Candidate CDL Training
- New Bus Operator Training Course
- Bus Operator Refresher
- Mechanical CDL Training

Bus Maintenance Training

- Basic Mechanical - Orientation
- Service Lane Operation
- Service Lane Annual Refresher
- Wheel & Tire Maintenance
- Steam Cleaning
- Forklift Operation
- Skid Steer Operation
- Basic Electrical
- PLC Electrical
- Engine Familiarization
- Cummins ISL Engine
- CNG Engine Familiarization
- CNG Fuels
- Engine Fault Code
- Basic Hydraulics
- Automatic Transmission
- Hybrid Drive
- Pneumatics Systems
- Entrance & Exit Doors
- MAN Drum Brake, Rear
- MAN Drum Brake, Front
- MAN Disc Brake Axle
- Meritor Drum Brake
- Meritor Disc Brake
- Steering & Suspension
- HVAC System

- RRC 608
- ADA Equipment
- PM Service
- Cummins ISL Tune Up
- BMNT Fall Protection
- Non Passenger Ops for BMNT Employees
- BAE Disconnect Verification Procedure Training
- Driver Safety Training
- Backing Safety Solutions
- Powered Industrial Trucks
- Vendor Safety Training

Technical Skills and Maintenance Training – RWP

- Initial Class RWP Level-1
- Initial Class RWP Level-2
- Initial Class RWP Level-4
- RWP Level-1 CBT-Refresh
- RWP Level-2 CBT-Refresh
- RWP Leve-4 CBT-Refresh
- RWP Level-2 REQUAL
- RWP Level-4 REQUAL

Technical Skills and Maintenance Training – ELES

- Elevator Doors
- Maxton Control Valve & Adjustments
- Kone Escalators Model Trans-180
- TSMT Orientation/101A
- Study Skills /101B
- Customer Service/101C
- Safety, First Aid, CRP AED 102A&B
- Tools and Material Handing / 103
- Mathematics Review/104
- Electrical I - DC Fundamentals / 108
- Electrical I - AC Fundamentals / 109
- Hydraulic Theory & Applications / 110
- Basic Mechanical Theory & Applications / 111a
- Overview of Vertical Transportation/200
- Escalator-Principles of Operation/208
- Elevator-Principles of Operations / 213
- Elevator-Inspection & Basic Maintenance/219
- Elevator-Other Systems/220 (Includes NAESA Exam)
- Advance Level Electrical/Electronic Systems)
- Advance Level Controllers
- Basic Radio Communications

Technical Skills and Maintenance Training – COMM

- PASSENGER INFORMATION DISPLAY SYSTEM
- CCTV/DVR FUNDAMENTAL

- Public Address Systems
- SWING GATE TRAINING
- RAMEX PERS/INTERCOM
- HONEYWELL VISTAe 128BPT

Technical Skills and Maintenance Training – SSRV

- Floor Cleaner Operations
- Ladder & Scaffolding Initial Training
- High Voltage Self Awareness
- Powered Industrial Trucks
- Small Engine Repair
- HVAC Certification
- AC Fundamentals
- DC Fundamentals
- Basic Mechanical
- Basic Motor Controls
- Tunnel Fan PMI
- Overview Drainage Pumping Stations
- Introduction to Custodial Training
- Cleaning for Health / Green Cleaning

Technical Skills and Maintenance Training – ATC

- ATC Informational and Training Session
- OJT Mentor Training
- Practical test prep
- CAB Signal Level ATC Platform and Spillover Measurement
- BASELININGTRACK CIRCUIT AND WAYSIDE
- M3 switch - Adjust, Maintain, Troubleshoot
- GM 4000 intro & SWITCH ADJUSTMENTS
- ATC Journeyman 10-Day Phase 1 Intro to ATC
- 15-day phase 2 Track circuits
- 10-day phase 3 Track circuit logics
- Phase 4 Switches - 15 day
- Phase 5 Data Transmission
- ATC OJT

Technical Skills and Maintenance Training – TRST

- Initial Track Inspection Training
- Track Inspection Recertification Training
- Initial Equipment Operator Training
- Equipment Operator Recertification Training
- Basic Training Vehicle Flag Person
- Flag Person Recertification
- Hi-Rail Gear Utility Truck (21587)
- Hi-Rail Bridge Lift (Scissor) Truck (22504)
- Hi-Rail Bridge Lift (Scissor) Truck (22501)
- Hi-Rail Bridge Lift (Scissor) Truck 248/260
- Plasser PMC-50

- Aspen Aerial
- Basic Rigging
- Building Condition Assessment Training
- Bridge Inspection Refresher Training
- DE-ICER FLATCARS-RCC & PLASSER DI-40
- Equipment Operator Refresher
- Equipment Operator Exam
- Equipment Flag Person Exam
- Frog Welding
- Gauge Rods
- Geismar Operator Training
- Vacuum Truck 21588-589
- HI-RAIL BRIDGE LIFT TRUCK-VENDOR
- Initial Track Inspector Training - Vendor
- MARYLAND DOT TRAFFIC CONTROL
- Basic Laborer Training
- Safety Inspection of in-Service Bridges 130055
- NORDCO BUNDLE
- PM SV01&02
- Re-Instruction TRST
- Scissor Lift Truck
- String Lining & Combination Gauge & Level
- Snowplow
- Track Charts
- TGV Operation & Maintenance
- Thermite Welding - Vendor
- Track Repairer 1
- Tunnel Safety Inspection FHWA-NHI-130110
- Ballast Regulator Knox Kershaw Operator
- PLASSER TAMPER 4x4 Operator
- Silica Power Air Purified Respirator Training
- Reinstruction for TRST Employees

Technical Skills and Maintenance Training – CMNT

- Preventive Maintenance Electrical 2/3/6/7/K
- Preventive Maintenance Mechanical 2/3/6/7/K
- 7KSystem Introduction & Troubleshooting
- 7K Intro CBT Test-out
- 7K Sub-System Electrical
- 7K Sub-System Mechanical
- Train Movement In to/Out of CMNT Shops
- Rail Car Daily Inspection 2/3/6/7 K
- HVAC EPA 608-609
- HVAC Fundamentals Refresher
- 7K Trucks/Couplers
- QA/OJT

Appendix F – PTASP General Manager Certification

PUBLIC TRANSPORTATION AGENCY SAFETY PLAN (PTASP) CERTIFICATION:

I, Paul J. Wiedefeld, General Manager and CEO, have reviewed the Public Transportation Agency Safety Plan (PTASP) and certify that the safety plan is satisfactory and complies with each of the requirements of the PTASP rule (49 C.F.R. Part 673), and that the safety plan effectively will guide the Washington Metropolitan Area Transit Authority with the management of safety risks of the rail and bus operations of the Authority.

Date: September 22, 2020

Paul J. Wiedefeld
General Manager and
Chief Executive Officer

Washington Metropolitan Area Transit Authority

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A District of Columbia, Maryland and Virginia Transit Partnership

Appendix G – WMATA Board Resolution Approval

SUBJECT: APPROVAL OF 2020 PUBLIC TRANSPORTATION AGENCY SAFETY PLAN

RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

WHEREAS, Federal Transit Administration (FTA) regulation 49 C.F.R. § 673.11(a)(1) requires the Board of Directors to approve WMATA's Public Transportation Agency Safety Plan (PTASP); and

WHEREAS, FTA requires grant recipients, such as WMATA, to submit a PTASP annually; and

WHEREAS, The General Manager and Chief Executive Officer has certified to the Board of Directors that the PTASP is satisfactory and complies with each of the requirements of the PTASP rule (49 C.F.R. Part 673), and that the PTASP effectively will guide WMATA with the management of safety risks of the rail and bus operations of the Authority (Attachment A to this Resolution); and

WHEREAS, The Board of Directors accepts the PTASP as satisfactory, that the PTASP complies with each of the requirements of the PTASP rule (49 C.F.R. Part 673), and that the PTASP effectively will guide WMATA with the management of safety risks of the rail and bus operations of the Authority;

NOW, THEREFORE, be it

RESOLVED, That the Board of Directors approves the 2020 Public Transportation Agency Safety Plan set forth in Attachment B to this Resolution; and be it finally

RESOLVED, That this Resolution shall be effective 30 days after adoption in accordance with Compact Section 8(b).

Reviewed as to form and legal sufficiency,

/s/ Patricia Y. Lee
Patricia Y. Lee
Executive Vice President and General Counsel

WMATA File Structure No.:
22.6.1 Federal Transit Administration (FTA) Safety Oversight

PROPOSED